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Level of person served, occupational field involved, and community within the Commonwealth of Puerto Rico, serve to organize the accomplishments for the year. Expansions and improvements are described for high school and post-secondary students, for employed persons, and those with special needs by each of the following vocational areas: (1) trade and industry, (2) health occupations, (3) office occupations, (4) distribution and marketing, (5) vocational agriculture, and (6) home economics. Activities in strengthening the programs are presented as data concerning the effort of teacher training, vocational guidance, curriculum development, research, and evaluation of programs. The physical facilities for the programs, the work-study programs, legislation, strengths, and unmet needs of the Commonwealth programs are presented from the overall Commonwealth point of view. Additional significant information covers the special programs of Industrial Arts, Manpower Developing and Training, and Hotel School, as well as an accounting of recent promotional efforts, and a listing of publications by vocational area. (MU)

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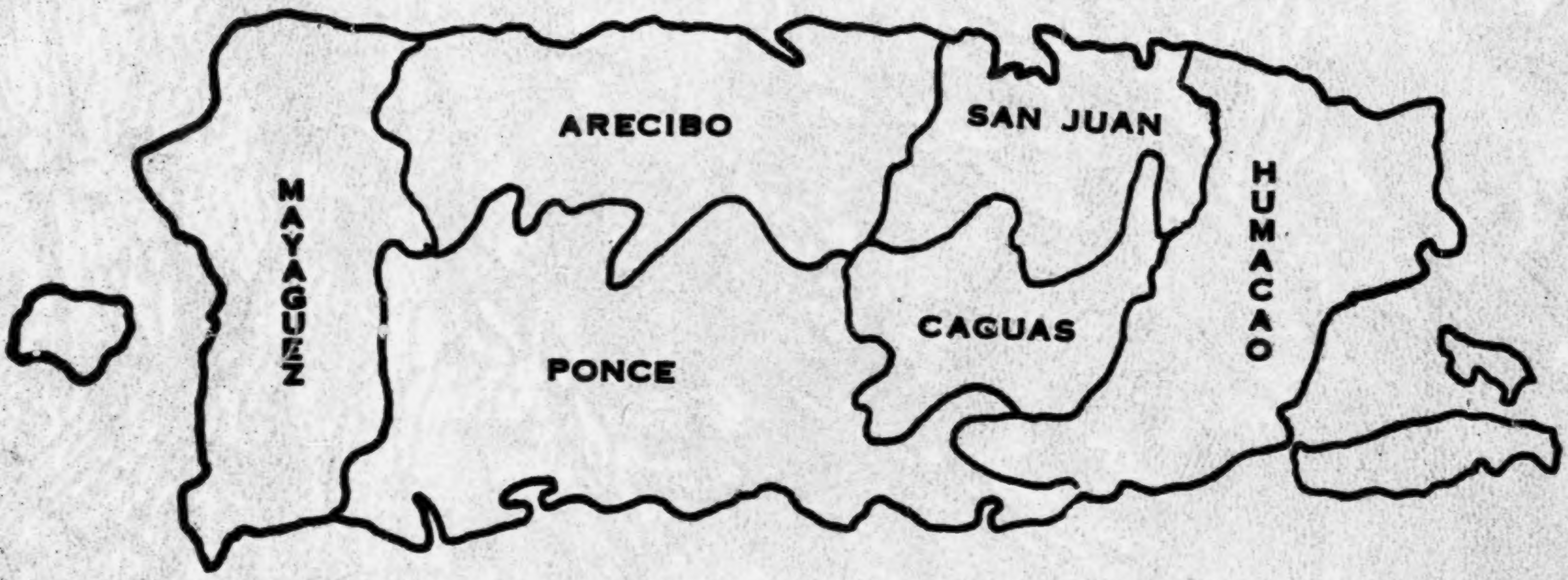
1967-1968

Area For Vocational And Technical Education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ANNUAL DESCRIPTIVE REPORT, 1967-68.

AREA FOR VOCATIONAL AND TECHNICAL EDUCATION
COMMONWEALTH OF PUERTO RICO
3 Puerto Rico State DEP~~ARTMENT~~T. OF EDUCATION, Hato Rey.

YEAR ENDED JUNE 30, 1968

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INTRODUCTION

Social and Economic Conditions of Puerto Rico

The continued growth of the Island's economy through the establishment of new industries and technological advances in industry, the increasing demand for skilled personnel, along with a population growth at a 2.3 per cent rate during the first half of 1960-70 and, as a result, the rapidly changing patterns of living, constitute a real challenge to the Area for Vocational and Technical Education for the development of vocational and technical programs and services in the Commonwealth of Puerto Rico.

Employment has increased between fiscal 1960 and 1967 from 543,000 to 684,000. Better paid jobs continued increasing in 1967-68 for both men and women, while lower paid jobs declined. This is due in part to the shift from traditional industries using unskilled or semi-skilled labor and paying low wages to industries demanding skilled, well-trained personnel and paying higher salaries.

New job opportunities created through this rapid economic growth have brought an increasing demand for personnel with specialized training, such as engineers in all fields and other professionals, programmers and data processors, business managers, and personnel for commerce and service, health, restaurant and hotel, and construction industries.

Projection studies indicate there will be a minimum of 27,133 new jobs each year for which trained manpower must be provided if the present level of employment is to be maintained. It is anticipated employment for professional, technical and other skilled personnel will more than double by 1975 in commerce and the different types of industries now established or being established.

The most significant elements in the economic growth are manufacturing, construction, tourism and government, with manufacturing at the top in 1967-68. By fiscal 1969 construction is expected to be one of the main sources of economic expansion in outlay, net income and employment. By 1975 tourism is expected to have employment for at least 30,000, of which 21,000 will be in jobs directly related to hotel activities and 9,000 in restaurants, transportation and other related fields.

The only area, in fact, where employment has dropped is in agriculture, which was only 93,000 in 1967 and is expected to fall to 85,000 by 1970.

The economic growth means, however, that manpower shortages will pose an even more serious problem in the future than now. At the same time entrants in the labor force are increasing faster than training can be provided, so that the unemployment level remains much too high.

On the Area for Vocational and Technical Education rests the major responsibility for preparing the trained personnel and technicians that are needed and will be needed in the future. The expansion of facilities and services for training has become an absolute necessity if this personnel is to be supplied. School enrollment increases each year and population studies reveal a much larger number of students will reach college age level in the next few years and will expect to attend post-secondary vocational and technical institutions.

In 1967 the Area contracted with the Center of Social Science Research of the University of Puerto Rico to make a survey to determine the occupational and manpower needs for industry and commerce in the next decade and of the facilities programs required to meet these needs. The completed survey is expected to be ready in 1969. A similar survey is being carried out in agriculture by the Division of Research of the Department of Education. These two surveys will enable plans for future vocational and technical training development to be made with a greater degree of accuracy toward a more effective program.

1. a- Educational levels and groups of persons served

During 1967-68 vocational programs and services reached 161,816 persons, an increase of 13,968 over the previous year. Enrollment included 10,231 (6.3 per cent) in vocational schools or training centers; 108,037 (66.8 per cent) in academic secondary schools with vocational courses; 2,260 (1.4 per cent) in post-secondary or technical courses; 5,477 (3.4 per cent) out-of-school youth, 9,531 (5.9 per cent) persons with special needs; 4,531 (2.8 per cent) youth and adults in accelerated industrial programs, and 21,743 (13.4 per cent) adult already in the labor market.

b- Occupational fields

Training was offered in 213 different occupational fields: 126 in trades and industry, 28 in health occupations, 5 in office occupations, 7 in agriculture, 13 in distribution and marketing, 18 in home economics, 14 in technical education, and 2 in hotel school.

c- Different areas and communities of the Commonwealth

Vocational and technical education reached almost all areas of the Commonwealth both urban and rural, either through training courses organized in the communities themselves or through the area vocational high schools which served from six to ten communities each.

2. Expansion and improvement for high school students

Trades and Industry

The regular high school trade and industrial education program was expanded during fiscal year 1967-68 by 35 courses in 19 vocational high schools, vocational departments in senior high schools and sewing centers: six power sewing machine operation, five sewing machine repair, one dressmaking, two upholstery, two electricity, two electrical appliance repair, two office machine mechanics, six construction carpentry, two cabinet-making, three masonry and bricklaying, one plumbing and pipe fitting, two autobody repair and painting and one ornamental ironwork.

The Tomás C. Ongay Vocational High School, Bayamón, inaugurated this year, offered training to 407 students in 16 trades: cosmetology, power sewing machine operation, sewing machine mechanics, electricity, electrical appliances repair, refrigeration and air-conditioning mechanic, cabinet-making, ornamental ironwork, construction drafting, construction carpentry, masonry and bricklaying, plumbing and pipe fitting, automobile mechanics, autobody repair and painting, diesel mechanics and machine shop.

The vocational department of the Barranquitas High School, which had operated for two years in provisional quarters, moved into its own new building. Training was given 199 students in power sewing machine operation, dressmaking, electricity, electrical appliances repair, construction carpentry, masonry and bricklaying, automobile mechanics and autobody repair and painting. The teachers, who had been working on an hourly basis, were appointed as regular teachers.

Total high school enrollment in trade and industrial courses was 8,278, an increase of 714 over last year. Of these, 2,159 graduated from the program in May.

Health Occupations

Training was provided in 27 different health occupations under the cooperative industrial training program to 398 students in 21 high schools. These occupations were pharmacist aide, medical secretary, x-ray technician, medical record clerk, dental assistant, podiatric aide and others.

An innovative program was established at the Arecibo High School in coordination with the Work Experience Program of the Department of Labor. The facilities of the district and municipal hospitals were used for the clinical training.

The academic subjects were taken in the evening. Fifteen students were trained in this program.

Office Occupations

The program offered courses for secretarial, bookkeeping, secretarial-bookkeeping and clerk typist training to an enrollment of 14,925 in 71 senior high schools. Of this number 2,229 students were in elective subjects, with typewriting the most popular. Four programs were organized in Lajas, Añasco, Maunabo and Patillas offering secretarial-bookkeeping and clerk typist training.

A pilot clerk typist course for 28 students was organized in the Río Blanco Second Unit School, Naguabo.

Office practice in the four high school courses was given 2,067 twelfth grade students under the supervision of 67 teacher coordinators in 1,842 training centers: 1,079 Commonwealth agencies, 61 federal agencies, 78 municipal agencies and 624 private offices. Coordinators made 8,907 visits to these agencies and offices to observe student progress, evaluate work being done and to discuss the office practice experience with the employers.

Central High School, San Juan, has been equipped with a laboratory classroom where students have a chance to become familiar with modern office equipment such as electric typewriters, accounting machines, calculators and to use multi-channel listening equipment for improved training.

Distribution and Marketing

Enrollment in the cooperative programs of distribution in 16 high schools increased from 866 to 884, while the number of programs was reduced by one to 18. Four preparatory programs with an enrollment of 237 were offered in four high schools. The total enrollment of 1,121 was an increase of 106 over that of last year. The number of graduates, 397, was an encouraging increase of 91 over the previous year.

The owners of 425 retail, wholesale and service businesses offered their establishments as training centers. Retail establishments were in apparel and accessories, cosmetics, automobile supply stores and gasoline stations, food distribution, food services, general merchandise, hardware and building materials, gift shops, novelty stores, photo shops, record stores, office and school supplies, florist shops, sporting goods, notions and textiles. The wholesale establishments were in food distribution. Service industries were travel agencies, laundries, hotel and other lodging and route selling.

The 1,007 eleventh and twelfth grade students employed in these businesses earned $599,143 during the year, an increase of $139,747 over last year's earnings. The highest weekly salary was $85; the lowest $6.00; and the average was $18.

Teacher coordinators made 15,746 visits to these training centers to supervise and evaluate the work of the students, to discuss the program with and offer orientation to the owners and managers, and to receive suggestions and recommendations from the latter for program improvement.

Vocational Agriculture

Classroom instruction and field training was provided to 4,641 students, 4,173 in junior and 468 in senior high schools. Nineteen senior high schools had vocational agriculture programs, the same number as the year before.

The 4,555 junior and senior high school students in regular vocational agriculture classes (production) carried out supervised farming programs on their home farms and on the school farms. On home farms 11,284 acres were planted to different crops, and 22,114 head of animals and 22,750 head of poultry were raised. These students contributed an estimated $800,000 to the gross farm income of Puerto Rico.

Gross income from school farms amounted to $52,324. Farmers received 8,000,000 seedlings from the six farms having tobacco seed-beds, and students and farmers received 665,000 vegetable seedlings.

Breeding stock on school farms produced 456 gilts and pigs that were sold to students at reduced prices to help improve their home farm stock, and the school farm stock serviced 3,640 animals belonging to students and farmers.

Home Economics

Education for homemaking (useful employment)

The all-day home economics courses for homemaking had an enrollment of 45,588 pupils, 40,854 in junior and 4,734 in senior high school. Training covered the five major areas of homemaking: food and nutrition, textiles and clothing, housing, home furnishings and decoration, home management and family economics, and human development and family relations. Home experiences and club work were also included as part of the training.

Approximately 1,000 students enrolled in home economics exchanged classes with the same number of students in vocational agriculture and industrial arts for two-week periods in schools where the programs were offered.

Eight different special elective one-semester courses related to the five major areas of homemaking were taught to 1,928 girls and 429 boys in senior high schools. These courses were in home furnishing, clothing problems, home bakery, family relations, consumer education, advanced clothing construction, courtship and marriage, and foods and nutrition.

Education for gainful employment

The rapidly growing demand for courses in occupational education has been very gratifying. Student enrollment increased from 568 to 875 (54 per cent); senior high schools offering courses from 29 to 40 (37.9 per cent); and school districts now having such courses from 23 to 34. These one-year courses cover training as assistant in food preparation and service, specialist in home bakery, specialist in food preparation and service for special occasions, assistant in child day-care center, companion to elderly or convalescent in the home, and assistant to interior decorator (basic course). They are approximately 350 minutes a week: two 100-minute and three 50-minute periods.

3. Expansion and improvement for post-secondary students, including graduates and drop-outs

Trades and Industry

Courses for 5,605 post-secondary students were conducted in vocational high schools, vocational departments in senior high schools and special training centers. Shop training only was offered to 112 in post-secondary graded courses and to 1,721 students in ungraded courses during regular school hours. The remaining 3,772 youth received training in different occupations during after-school hours at vocational schools or vocational departments in senior high schools in Aguadilla, Arecibo, Barranquitas, Bayamón, Caguas, Cayey, Guayama, Hato Rey, Humacao, Mayaguez, Ponce, Río Piedras and San Juan, or during the day at special training centers in Canóvanas, Cidra, Río Piedras and Vega Baja.

A new vocational training center was established in Aguadilla to supply employees for the shoe industry. Training in various aspects of the industry was given to 255. Aguadilla and nearby municipalities have been an area of severe unemployment.

Industrial sewing centers for 80 were organized in Adjuntas and Las Marías both towns in depressed areas with few industries and little chance for employment.

Health Occupations

Three post-secondary courses were offered by college level institutions under contract to the Area for Vocational and Technical Education: dental assistant to 32 students at the School of Dentistry, University of Puerto Rico, Río Piedras; technical nursing to 72 students at the Puerto Rico Junior College, Río Piedras (private); and the same course to 31 students at the Humacao Regional College of the University of Puerto Rico.

Federal legislation amending the Social Security Act (Medicare), private prepaid medical plans and construction of new facilities for medical and health services have brought a greatly increased demand for health personnel and, consequently, the expansion of the training programs.

Enrollment in practical nursing courses was 581, a significant increase of 178 (39.3 per cent) from the year before. There were 343 graduates from this course, as compared with 283 the previous year. Seven vocational high schools, four vocational departments in senior high schools, 21 private and public health institutions (general and specialized hospitals, diagnostic centers and the Puerto Rico Medical Center, Río Piedras) from all parts of the Island and the Department of Labor cooperated in the program for practical nursing training.

Office Occupations

Two-year post-secondary secretarial and bookkeeping courses were organized in the new Tomás C. Ongay Vocational High School, Bayamón, for a total of five courses in each of these fields offered to 647 students in five vocational high schools. A pilot bilingual secretarial course with 30 students was organized at Central High School, San Juan.

Three one-year clerk typist courses for high school graduates were offered at Central High School: two afternoon courses from three to five and five to seven, meeting four times a week, with an enrollment of 160, and one Saturday morning course eight to twelve with 35 students.

An additional 1,493 graduates and drop-outs were enrolled in 45 one-year clerk typist courses in 31 schools.

The Humacao Regional College of the University of Puerto Rico, under contract to the Area for Vocational and Technical Education, offered a two-year post-secondary course in advanced secretarial training to 85 students and one for junior accountants to 57 students.

Distribution and Marketing

The two-year post-secondary course for mid-management in retailing at the Miguel Such Vocational High School, Hato Rey, had an enrollment of 65. A second course for mid-management in retailing was organized for 30 students at the Humacao Regional College of the University of Puerto Rico under a contract with the Area for Vocational and Technical Education.

Two types of courses for supermarket management were organized. The first, a one-year course to train high school graduates as junior executives for supermarkets, was organized at the Miguel Such Vocational High School. The 24 students spent three days a week (Monday through Wednesday) in classes that included Business English, Business Spanish, Mathematics of Distribution, Principles of Management, Supermarket Management, Personnel Administration and Industrial Relations for the theory and technical aspects. The other three days were spent as trainees, working in a supermarket.

The second type of training was a modified course of eight months only for 109 persons who had dropped out of eleventh or twelfth grades or who had had some experience working in a supermarket. This training, under the supervision of four adult coordinators in Arecibo, Bayamón, Caguas, Mayaguez and San Juan, consisted of evening classes in the same subjects as those in the full course but covered less intensively but with no on-the-job experience.

Two instructors were in charge of job placement for both the retailing and supermarket programs. Students in the Miguel Such course for mid-management in retailing and in the supermarket junior executive course earned a total of $24,739.26.

Vocational Agriculture

There was an enrollment of 190 high school graduates and drop-outs in six post-secondary schools. These were the tractor schools in Pájaro, Toa Baja, and Mora, Isabela, offering a one-year course; the farm mechanics school at Sabana Seca, Toa Baja, a one-year course; the coffee school at Mameyes, Utuado, a six-months course; the poultry school at La Plata, Aibonito, a 16 week course; and ornamental horticulture school at Cupey, Río Piedras, a one-year course.

All these post-high school centers received additional facilities and equipment.

Home Economics

Education for gainful employment

Six occupational education courses were offered to 212 high school graduates and drop-outs as assistant in food preparation and service, assistant seamstress and worker in other clothing services, assistant to florist, specialist in home bakery, assistant to interior decorator, and companion to elderly or convalescent in the home.

Technical Education

As industry in Puerto Rico becomes more highly technical, the demand for technically trained personnel has increased rapidly. The technical education programs strive to meet this demand through technological institutes and courses in college level institutions under contract to the Area for Vocational and Technical Education.

In addition to the expansion of courses in the already established Technological Institute of San Juan, plans were completed for inaugurating the Technological Institute of Ponce in the fall of 1968. Also, the contract with the School of Engineering for the Evening Technical Institute, Mayaguez campus of the University of Puerto Rico, continued in effect.

Enrollment in the Technological Institute of San Juan increased from 370 to 465 (38. 95 per cent). Of these, 24 were in a post-secondary non-technical course. Ninety students were graduated, 74 from the seven complete two-year technical courses and 16 from a one-year post-secondary course in records unit. In January 1968 a cooperative training program was organized with industry, so that 46 second-year students were employed in the industrial fields in which they were being trained and continued working with the same industries on graduation.

Of the 85 graduates available for employment, 83 (97. 7 per cent) were placed immediately. The other graduates entered the Army or continued studying.

The Evening Technical Institute in Mayaguez had an enrollment of 289 in the five courses offered, of whom 47 were graduated. These graduates were also placed immediately in industries of that area.

4. Expansion and improvement for persons already in the labor market

Trades and Industry

The accelerated industrial training program continued serving the need for trained personnel in new and already established industries. A total of 3,737 persons were enrolled in approximately 149 courses. Of these, 701 were industrial supervisors who received training in quality control, cost reduction, waste control, production motivation, job methods, job relations, job instruction, human relations and communications. Another 72 supervisors were given a new course in work simplification at the University Hospital, Puerto Rico Medical Center, Río Piedras.

Fifty-seven in-plant courses were organized for 1,811 employees of 44 industries. Eleven apprenticeship courses were offered to 210 persons. Fifteen persons were trained in a fishery course, 476 in 22 extension courses and 452 in 18 preparatory trade courses for adults other than in-plant or apprentice training.

The program contributed to the rehabilitation of ex-combatants of the U.S. Armed Forces through the organization of 51 courses in 13 different trades for 1,838 veterans enrolled in 14 vocational high schools. During the year, 416 completed their training.

Health Occupations

Four special courses were organized at the request of the Puerto Rico Medical Center, Río Piedras, to train 68 prospective or regular employees for central supply workers, hospital attendants, patient escorts and out-patient attendants. Another course was organized in teaching methods for graduate nurses in service.

Office Occupations

Federal funds allotted to match state funds made possible the expansion of the adult program, so that 4,069 persons, 998 (32.5 per cent) more than the previous year, received training to upgrade their skills or learn new ones to equip them for entry into a new occupation. Sixty-four teachers in 27 districts taught courses in Spanish and English shorthand, typewriting, bookkeeping, general office practices, filing and economics.

Distribution and Marketing

The adult program offered 216 courses or seminars to 6,911 owners, managers, supervisors and employees of business enterprises in 30 communities. Five adult coordinators in five of the six educational regions were in charge of promotion, organization, preparation of instructional materials and training of 91 part-time instructors, as well as teaching courses themselves. During the first semester the adult coordinator assigned to the Central Office also worked in the Humacao region.

Ten seminars were offered to 344 business owners, managers and supervisors in sales promotion, advanced selling techniques, labor relations, human relations, business administration and income tax procedures. Two seminars were given to 368 owners and managers of furniture stores in interior decoration and window display.

New courses introduced this year for employees were training for restaurant personnel, catering services, gas station service and automobile sales. In cooperation with the Commonwealth Department of Labor 98 preparatory courses were offered to adults interested in working in distribution and marketing.

All these activities were coordinated with the federal Small Business Administration, Wage and Hour Division of the U. S. Department of Labor, Internal Revenue Division of the Commonwealth Treasury Department, Agricultural Marketing Services of the Commonwealth Department of Agriculture, Commonwealth Department of Labor, Puerto Rico Urban Renewal and Housing Corporation, Sales and Marketing Executive Club, Professional Salesman Association, Puerto Rico Industrial Meat Co. (PRIMCO), and Association of Furniture Store Owners.

Vocational Agriculture

Thirty-five vocational agriculture teachers were assigned to work full-time with 1,693 adult farmers in the five agricultural regions in which the Island has been divided by the Agricultural Council of Puerto Rico. They provided group and individual instruction and training, conducted tours and demonstrations and cooperated with other government agricultural programs. In addition, they gave help and guidance to 3,312 other farmers referred to them by the five regional agricultural offices.

The accelerated agricultural training program reached 794 farmers or farm workers through 59 short or intensive courses in agricultural production, farm mechanization, marketing and distribution, ornamental horticulture, soil and water conservation and farm management. These courses were taught by 42 special teachers employed on a part-time basis.

Home Economics

Education for homemaking (useful employment): Classes were offered in 28 communities to 5,207 adults and out-of-school youth for useful employment, covering the five areas of homemaking and were taught by 52 teachers.

Education for gainful employment: Additional training, or retraining, was given 138 adults or out-of-school youth for stability or advancement in their employment in three different fields: specialist in food preparation and service for special occasions, assistant seamstress and worker in other clothing services and assistant in food preparation and service.

5. Expansion and improvement for persons with special needs

Trades and Industry

Training for such groups was intensified during the year and benefited 1,856 persons. Twenty-one courses were offered to 377 inmates in 10 penal institutions; five to 80 boys in institutions for juvenile delinquents; 11 to 535 beneficiaries from the Public Welfare Division; and 39 to 848 boys from other institutions and camps.

A new vocational training center was established in the Nemesio Canales Public Housing Project as part of a community program to prevent or control juvenile delinquency which has plagued that housing project. A course in masonry and bricklaying was offered to 16 youth.

Health Occupations

Training as hospital attendants was offered to 20 inmates of the State Penitentiary assigned to the penitentiary hospital.

Practical nursing courses were given to 17 beneficiaries from the Public Welfare Division, to 18 persons in the New Careers Program of the Department of Labor and to 15 persons in the Work-Study Program of the same department. At the request of the New Careers Program nine orientation courses on outpatient attendant, central supply worker, surgical technician, medical laboratory assistant, x-ray technician, medical record technician, practical nursing and patient escort were organized for 104 persons.

Distribution and Marketing

A preparatory course of 66 hours in selling techniques in English, mathematics of distribution and cashier training was organized for 18 drop-outs, residents in a public housing project in Arecibo. Classes met in the community center of the same project.

Another course of 15 hours in flower selling techniques was offered to 26 girls in a correctional institution in Ponce.

Vocational Agriculture

Seventy-nine persons, inmates on the farms of the state penitentiaries and boys in the work and study camps of the Department of Education, were given training in courses under the accelerated agriculture training program.

Home Economics

Education for useful employment (homemaking)

Courses in the five areas of homemaking education were offered in 37 communities to 6,621 individuals with academic and socio-economic handicaps from 22 public housing projects and deprived rural areas and beneficiaries from the Public Welfare Division.

Education for gainful employment

Courses were organized for 817 adults and out-of-school youth from public housing projects and low-income communities throughout the Island. They were in eight occupations: specialist in food preparation and service, specialist in home bakery, specialist in food preparation and service for special occasions, baby sitter and assistant in child day-care centers, companion to elderly or convalescent in the home, assistant to interior decorator, homemaker's assistant, and assistant seamstress and worker in other clothing services.

6. Work-study program for youth

The Work-study program operated with a budget of $195,439, of which $40,000 were state funds and $155,439 federal funds. Because federal funds were received so late in the school year, no local programs could be organized until summer, which seriously limited the number of students involved and also made it very difficult to carry out arrangements with other governmental agencies for student work.

In May, June and July, 1,800 youth selected from all vocational programs in 73 school districts benefited from the program. They were paid $0.80 an hour and worked an average of 40 hours a month in summer jobs in the local schools.

If funds were available the full year, this program could be very valuable for the retention of students who are now forced to drop out and look for work because of the family economic situation. These students must, perforce, join the ranks of unskilled labor for whom there are fewer employment opportunities each day. The number of students benefiting from the program would be considerably increased over that of the summer programs. They would also have a chance to complete vocational training in some particular skill or technology for which there is a demand.

7. Impact of construction of area vocational education schools

Two area vocational high schools were opened in 1967-68, the Tomás C. Ongay Vocational High School in Bayamón and the vocational department of the Barranquitas senior high school.

The Tomás C. Ongay Vocational High School had a total enrollment of 1,135 students and a faculty of 23 regular teachers. The school serves the municipalities of Bayamón, Cataño, Comerío, Corozal, Dorado, Guaynabo, Naranjito, Toa Alta, Toa Baja and Vega Alta. Courses were offered to high school and post-high school students, veterans and persons enrolled in the Manpower Development and Training Program.

Plans have already been made to enlarge the facilities in order to increase the number and kinds of courses and to provide for a larger enrollment at all levels.

The Vocational department of the Barranquitas senior high schools moved from the provisional quarters occupied the past two years into its own new building with new facilities. It serves the municipalities of Aibonito, Barranquitas, Cidra, Coamo, Comerío, Corozal, Naranjito, Orocovis and Villalba. Total enrollment for high school students, out-of-school youth and persons with special needs was 321 with five regular teachers.

In fiscal 1968 the Commonwealth government appropriated a total of 2.7 million and the federal government another $4.4 million for construction of area vocational high schools in Manatí and Guayama. An additional contribution of $2.75 from the Federal Economic Development Administration for the Guayama area vocational high school will make it possible to accelerate construction of this school for which plans are being completed. Construction of the Manatí area vocational high school will begin in 1969. It will have facilities for training in 21 occupational fields and will serve five municipalities.

Trades and Industry

The Tomás C. Ongay Vocational High School offered, in addition to the 16 courses already listed in Item No. 2 for high school level, courses in electronics, hairstyling, color TV mechanics and an accelerated course in power sewing machine operation to an enrollment of 137 out-of-school youth, 32 in extension courses and 34 veterans.

The Barranquitas vocational department offered, in addition to the high school level courses listed in Item No. 2, courses in power sewing machine operation, construction carpentry and autobody repair and painting to 57 out-of-school youth.

Health Occupations

A course in practical nursing was offered at the Tomás C. Ongay Vocational High School to 19 students.

Office Occupations

The two two-year post-secondary courses in this field offered in the Tomás C. Ongay Vocational High School are listed in Item No. 3 on post-secondary programs. These courses had an enrollment of 100 students.

Home Economics

Courses in gainful occupations were offered to 15 students in food preparation and service and to 16 students in bakery at the Tomás C. Ongay Vocational High School.

8. Construction of additional vocational and technical school facilities

There was no additional construction of vocational and technical facilities other than those described above in Item No. 7.

9. Organization and staffing at Commonwealth level

Trades and Industry

The staff at Commonwealth level is composed of one director, three assistant directors, one assistant director for the health occupations program, one general supervisor for veterans education program, six general supervisors, one each in the six educational regions, and one training official for the industrial supervisory training.

Two meetings of the Commonwealth level staff were held, one at the beginning of the school year to discuss administrative and supervisory aspects of the program and the second at the close of the year to evaluate the year's work in each region. A meeting was held with all coordinators of cooperative industrial courses to evaluate this program.

The director of the program attended the meeting for State Directors of the Eastern Region at Charlottesville, Virginia.

Health Occupations

The assistant director in trades and industry in charge of the health occupations program was responsible for directing and supervising the technical aspects of the program in the area vocational high schools and vocational departments and in coordinating program activities with other cooperating Commonwealth and local agencies.

The assistant director visited the U. S. Office of Education and several state offices to confer with key persons on new trends in health occupations education and to observe the new concept of health training centers. This was one of the most profitable in-service training activities of the year.

A general supervisor was appointed on a part-time basis to work in the new Office for the Accreditation of Practical Nursing Schools, as required by Commonwealth Law No. 121 of June 1965. This office is responsible for setting up criteria for the accreditation of schools of practical nursing, for preparing rules and regulations for schools of practical nursing, for the survey and periodic evaluation of all schools of practical nursing in Puerto Rico, and for the evaluation of transcripts of records of graduates from schools of practical nursing outside of Puerto Rico and for keeping official records on practical nursing. The preceding functions were transferred by the above law from the Board of Nurse Examiners.

The assistant director was appointed by the Governor to serve on the Advisory Committee for Medical Assistant to the Secretary of Health. She also attended 6 professional and educational meetings organized by the Teachers and Administrators of Nursing Schools Section of the Puerto Rico Graduate Nurses Association.

Office Occupations

The Commonwealth level staff has a director, two assistant directors, one general supervisor temporarily assigned to Central High School, San Juan, and six general supervisors, one in each of the six educational regions. The general supervisor assigned to Central High School, where a pilot program is to be carried out, will be in charge of organizing and directing this program.

Distribution and Marketing

The Commonwealth level staff has one director, one assistant director, one general supervisor and five adult coordinators assigned to the regional education offices of Arecibo, Caguas, Mayaguez, Ponce and San Juan. The position of adult coordinator in the Central Office was reclassified to that of general supervisor during the second semester.

The director, assistant director and general supervisor made 75 administrative and supervisory visits to regional offices and local districts for up-grading the levels of teaching skills and creating better professional attitudes.

Vocational Agriculture

The Commonwealth level staff consisted of a director, three assistant directors and seven general supervisors, of whom two served from the Central Office and five in the agricultural regions into which the Island is divided: Arecibo, Caguas, Mayaguez, Ponce and San Juan.

Staff members held eight meetings to discuss professional and technical problems and to receive orientation on norms and procedures.

The regional supervisors organized sixteen professional meetings for teachers. They were also responsible, in cooperation with local school superintendents and principals, for supervision of the program in senior high schools.

Staff members made three trips to the states to attend seminars and other educational activities related to agricultural education.

The program had the services of a consultant during April, May and June and plans have been approved for contracting these same services in 1968-69. The consultant is to help the staff analyze the evaluative study of the program conducted by the Caribe Consulting Services and to plan and develop a program of activities in line with the recommendations of this report.

Home Economics

The Commonwealth level staff has one director, one under-director, two assistant directors, one general supervisor in the Central Office, five general supervisors in each educational region of Arecibo, Caguas, Humacao, Mayaguez and Ponce and two in the San Juan educational region. There are also two curriculum technicians, one in the Curriculum Center of the Arecibo region and one in the Curriculum Center of the San Juan region.

The director and one teacher trainer from the University of Puerto Rico, Río Piedras campus, attended the National Conference of Home Economics in Kansas City, Missouri. The under-director attended an Institute on Developing Public Relations and Information Program in Vocational Education in Atlanta, Georgia. In July and August 1967 the under-director and general supervisors from the Humacao and Caguas educational regions attended a special course on Education for the World of Employment at New York University.

Staff members attending all the above activities found them very whortwhile.

Technical Education

This program has only one supervisor at Commonwealth level. The supervisor worked in close cooperation with the director of the Technological Institute of San Juan in planning for and organizing the Technological Institute of Ponce, which opens in the fall of 1968-69.

The supervisor attended three meetings of the Joint Committee for Technical Education of the Superior Education Council of the University of Puerto Rico and the State Board for Vocational and Technical Education to work out a plan for developing a coordinated program of technical education sponsored by both agencies. The supervisor also met with representatives of the petrochemical industries in Puerto Rico to develop plans for the cooperative training of personnel in these industries, the plan to be effective in 1968-69.

Guidance

The Commonwealth level staff has one director, three assistant directors and six general supervisors, one in each of the six educational regions. A specialist in occupational information and an educational researcher also belong to the Commonwealth level staff as part of the professional personnel of the Research and Development Coordinating Unit.

The director was a member of the Commonwealth level Home Economics Advisory Committee.

Research and Development Coordinating Unit

This Unit, inaugurated in April 1968, was organized with a director and an assistant director in charge of statistical data and follow-up of graduates. Additional personnel under contract to the Unit are two educational researchers, a specialist in public information, a curriculum specialist and three consultants, one legal, one academic and one in distribution and marketing education. All of these except the public information specialist were transferred from other programs at Commonwealth level when the Unit was organized.

10. Activities in strengthening programs

a. Teacher training

Trades and Industry

Special attention has been given to professional and in-service training. As a result, 219 teachers were enrolled in courses toward a bachelor's degree or certification in vocational industrial education. Of these, 26 shop teachers completed the requirements for certification; four teachers received scholarships for advanced training in the mainland in their respective trades and four to complete requirements for a master's degree. Six other teachers were granted a semester leave of absence with pay to study toward a bachelor's degree in vocational industrial education.

A seminar for 22 cordinators in the cooperative industrial education program was held at the Arecibo region Curriculum Center. Fourteen teachers of electricity received orientation in the use of new teaching equipment purchased for their shops at the beginning of the year. Two instructors of auto mechanics and two in radio-television mechanics also received training on new equipment.

A most significant activity in teacher training was the organization of six summer institutes for 61 teachers. These were on the latest methods and techniques in the trades of refrigeration and air-conditioning mechanics, auto mechanics, cabinet-making, electricity, construction drafting and radio-television mechanics.

These institutes were sponsored jointly by the program, other government agencies and private enterprises with very successful and gratifying participation by the latter.

In-service training was intensified in the educational regions. Three short intensive courses on accident prevention in the shops was offered to 20 trade teachers in the Miguel Such Metropolitan Vocational High School, San Juan region. Five meetings were held with 12 teachers of the Mayaguez region on shop organization and management, shop analysis, teaching methods and techniques and evaluation of teaching and shop work. One meeting of 10 teachers in the Ponce region discussed the use of visual aids. Three teachers of the Arecibo region met to discuss curriculum development.

A workshop on the use of the Dictionary of Occupational Titles was held for 20 teachers at the Tomás C. Ongay Vocational High School, Bayamón, at their request.

Health Occupation

Three teachers enrolled in vocational courses at the University of Puerto Rico, Río Piedras campus, to study toward the requirements for teacher certification. Two teachers continued graduate studies toward the master's degree and two others continued studies during the summer for a bachelor's degree. One teacher received a one-year leave of absence with pay for study toward her bachelor's degree in nursing.

Two meetings were held with the five regular teachers of practical nursing in the San Juan metropolitan area to give orientation on use and evaluation of audio-visual aids.

Office Occupations

The federal funds allotted through the Vocational Education Act of 1963 for scholarships have helped the expansion of the teacher training program. This made possible the appointment of an additional teacher trainer, bringing the number of these to four. Fifty provisional teachers received scholarships to study at institutions of higher learning in Puerto Rico; 25 enrolled in New York University graduate courses toward a master's degree in office occupations. Eighty-four students graduated from the University of Puerto Rico with a bachelor's degree in business education and another 300 students were enrolled in courses for a bachelor's degree in the same field.

Three summer workshops were organized for 45 teachers who had completed certification requirements; these were in data processing, stenotype and office machines. A two-day seminar on office practices, sponsored by Catholic University and the South-Western Publishing Company of Cincinnati, Ohio, was held in Ponce for 150 teachers.

Regional supervisors organized an average of four professional meetings each for teachers to orient them in effective techniques for teaching office occupations through demonstration classes in elementary and advanced Spanish and English shorthand, bookkeeping and office practices. Three meetings were held to discuss various aspects of the laboratory experience for students. Eight meetings were held to discuss the new guides on teaching shorthand and bookkeeping.

Distribution and Marketing

An intensive in-service program of 15 orientation and eight professional meetings was carried out. A demonstration class in project methods was given to 18 teachers by a teacher-coordinator who had received training at Rutgers University, New Jersey.

Individual orientation was given to eight new coordinators on methods of instruction, planning, organization of advisory committees, organization of Distribution and Marketing Education Clubs and on the forms and reports to be used.

During the summer a 60-hour seminar was offered to 20 coordinators and three candidates for new positions as coordinators that covered units on the project method as applied to the teaching of distribution and marketing, the use of audio-visual aids, techniques in window display, and the objectives and organization of clubs. The unit on methods was in charge of the teacher trainer from the Richmond Professional Institute, Richmond, Virginia.

No graduate program in distribution and marketing is offered by any university in Puerto Rico. Arrangements have been made with New York University to offer summer extension courses in Puerto Rico, to be coordinated with resident courses in New York, for a master's degree in the field.

Vocational Agriculture

Three workshops for 26 teachers were held during the summer to discuss technical and professional problems, prepare teaching aids, lesson guides and lesson plans, and give training in tractor operation and maintenance.

Funds available from the Vocational Education Act of 1963 made it possible to give scholarships to 13 teachers for summer courses required for certification, to eight other teachers to study for a master's degree in agricultural education, to a general supervisor for a semester and summer of graduate studies and to an assistant director to take summer courses in supervision and administration toward certification as a supervisor of vocational agriculture. Two general supervisors obtained a master's degree with a major in agricultural education and agricultural economics.

Seven graduate students working toward a master's degree in agronomy were given provisional appointments as vocational agriculture teachers and then granted leaves of absence with pay to enable them to finish their final semester toward the degree.

Supervisors made 482 visits to individual teachers and group meetings to help with professional and technical problems and for orientation.

The Department of Agricultural Education, College of Agriculture and Mechanical Arts (University of Puerto Rico, Mayaguez campus), was responsible for training 14 future teachers of vocational agriculture and to provide individual in-service training to five new teachers. The faculty of this department consisted of a director, teacher trainer and assistant teacher trainer.

Sixty-five teachers attended four forums organized by the College of Agronomists of Puerto Rico and the five agriculture regional offices. Technical and economic problems of agriculture in Puerto Rico were discussed. Two teachers attended a two-week training course organized by the Agricultural Council of Puerto Rico and the College of Agricultural and Mechanical Arts.

Home Economics

A two-week seminar on the development of occupational education courses in home economics was offered by the Commonwealth level staff to 39 teachers who had organized courses or had plans to organize them in this field and had demonstrated special leadership ability. Twenty-one had full scholarships for the seminar and 18 had half scholarships. Resource persons for the seminar were from the Department of Labor, Puerto Rico Urban Renewal and Housing Corporation, Public Welfare Division, private industry and hotels.

A two-day seminar on Educational Programs for Persons with Special Needs, sponsored by the Commonwealth staff of home economics and the Puerto Rico Urban Renewal and Housing Corporation, was organized to exchange ideas and study new trends and methods in developing educational programs in useful and gainful employment in home economics to serve persons with special needs. Among the 125 persons in attendance were supervisory, technical and teacher training personnel, 44 teachers of adults and 51 high school teachers of wage-earning courses and representatives from the Public Welfare Division, Red Cross, Department of Labor and the Home Economics Program Advisory Committee.

The Commonwealth level staff also sponsored a one-day Home and Food Forum in cooperation with the Puerto Rico Home Economics Association and Seventeen Magazine, for 50 teachers from the six educational regions and for supervisory, technical and teacher training personnel.

Graduate courses were offered for the first time by New York University in this summer extension courses at the University of Puerto Rico, Río Piedras campus. Two courses were offered to an enrollment of 39 teachers.

In June 1968, 434 teachers participated in an extensive training program on technical aspects of teaching wage-earning courses. This was developed in all six educational regions.

A cooperative program in pre-service teacher training continued with the School for Home Economics of the University of Puerto Rico, Río Piedras campus, and Inter American University, San Germán campus. This cooperative effort made it possible to maintain the curriculum of each university in line with the needs of all home economics programs, to keep teacher training programs up-to-date with new developments and to coordinate curricular revisions in the home economics program and the universities. The teacher trainers continued to participate in home economics staff meetings to share ideas for curriculum revision and contribute to the in-service program for home economics teachers and staff.

Three home economics teacher trainers at the University of Puerto Rico, Río Piedras campus, participated in several activities to strengthen the home economics education courses at college level. They visited regularly the 18 student teaching centers to work with the 28 supervising teachers for both all-day and adult education programs and to observe student teaching activities. New supervising teachers were oriented in their responsibilities through conferences and other professional activities. Two seminars on new trends and fallacies in foods and nutritition were offered to 23 supervising teachers.

The University of Puerto Rico, Río Piedras campus, gave a course in methodology and curriculum development, including an experimental program in micro-teaching, to 129 students. Practice teaching activities with all-day students, out-of-school youth and adults are provided these students.

Seventy-four students at the University of Puerto Rico completed their bachelor's degree in home economics.

Cooperation continued with Inter American University, San Germán campus, in developing the home economics teacher training program for accreditation. One regular home economics teacher served as teacher trainer on a part-time basis and two regular teachers served as supervising teachers for students practicing with both in-school and adult groups. Seven students graduated in home economics from Inter American University but must now complete requirements for certification, as the university program is not yet accredited.

Technical Education

Six professional meetings were held with teachers of the Technological Institute of San Juan. In-service was offered to four teachers of pre-technical courses and to six teachers of technical courses.

During the summer two teachers went to the states for training in industry, three took special courses in their field at the University of Puerto Rico, Río Piedras campus, two studied towards a master's degree and one had a short training course in her special field.

The director profited from four institutes on computer assisted instruction, one each in Massachusetts and Illinois and two in California.

Guidance Services

An average of nine professional meetings was held in each of the six regions with counselors and other school personnel to discuss: organization of guidance programs, guidance centers for out-of-school youth; group counseling techniques; individual interview techniques; testing programs; role of the guidance counselor in rural junior high schools; the educational and vocational guidance period; use of student cumulative records; role of the teacher in school retention; student selection for vocational and technical courses; and special programs such as the Neighborhood Youth Corps, Educational Opportunities Center, Job Corps Camps, and Work-Study Programs.

A two-week seminar in group counseling was held for 80 counselors at the University of Puerto Rico, Río Piedras campus.

Twenty scholarships were granted to teachers and counselors to study toward a master's degree in guidance at the University of Puerto Rico, Río Piedras campus. Five counselors completed the requirements for certification.

All guidance personnel attended the Eighteenth Annual Educational Guidance Conference, organized in cooperation with the colleges and universities of the Island and held this year at the University of Puerto Rico, Mayaguez campus.

The Commonwealth level staff made 278 supervisory visits to the 80 school districts to give individual orientation and help to the counselors, 24 per cent of whom have provisional appointments and need both professional and in-service training.

Resource persons who cooperated with in-service training activities for counselors were the directors and supervisors of the vocational and technical programs, officials from the Educational Opportunities Center, the Labor Department's Work and Study Camps, On-The-Job and New Careers Programs, and admission officials and other personnel from the universities and colleges of Puerto Rico.

10. Activities in strengthening programs

b. Vocational guidance programs and services

The value of educational and vocational guidance is becoming better appreciated by school administrators, faculties and communities as these groups are made aware of the growing problems of school drop-outs and youth unemployment and the relation these bear to juvenile delinquency. As a result, teachers and administrators are much more cooperative in guidance activities.

To foster this cooperation, counselors provide teachers for use in the guidance period with information on occupations and employment opportunities, courses of study at college level institutions and in vocational and technical schools, on scholarships and other student aid and with other data helpful to students in preparing their educational and vocational plans.

Each school counselor had an average of six meetings with the faculty of the school where he was working to explain techniques of group counseling for use in the guidance period, how to use the student cumulative record, how to interpret test results and give orientation on their use and on observing student progress and conduct as means to seeing the students as individuals with their own abilities, interests, aptitudes and problems in order to improve school retention and establish better school-pupil relations.

Secondary Schools

Guidance services were offered in 397 secondary schools with an enrollment of 226,469 by 245 counselors. Counseling services are not offered in elementary schools. The student-counselor ratio was approximately 912:1, although the recommended ratio for effective service is 300:1.

Each counselor held an average of approximately 739 student interviews with an average of 560 students. There were another 123 interviews with gifted students, 132 with slow learners and 10 with physically handicapped students. An average of 59 interviews was held with parents of these students. They were active in cooperating with school personnel in identifying pupils with special talents or abilities, slow learners, those with physical or socio-economic handicaps, and in helping schools to develop ways of meeting the needs of such students.

Counseling services in rural and urban junior high schools gave emphasis to retaining students in school, especially as the latter finished junior high school and needed to continue their education in either academic or vocational high schools, and in providing counseling on occupational and academic courses in these schools. Approximately 93 per cent of junior high school graduates continued studying in academic, vocational or technical courses.

Other services at this level were counseling in home economics, industrial arts and vocational agriculture, in solving personal or academic problems of students to retain possible drop-outs in school through better pupil-teacher relations, and providing economic aid or health services.

Counseling services in senior high schools, both academic and vocational, provided information on occupations and careers, post-secondary and technical courses and their requirements; university level courses and their requirements, occupational opportunities and job or career requirements, and scholarships or other student aid.

Counselors worked with students to help the latter with educational and occupational plans and to orient them toward choices suited to their particular interests and abilities. They cooperated with vocational teachers in promoting programs of trades and industry, office occupations, distribution and marketing, vocational agriculture, home economics in both useful and gainful employment, and in selecting students for the courses in the different programs.

Testing and related services

The testing program continued in seventh, eighth and tenth grades in cooperation with the Division of Evaluation of the Department of Education. Counselors cooperated in administering 40,049 mathematics tests and 40,280 science tests to eighth grade students. Other tests were 81,303 Puerto Rican General Ability Tests, 72,669 Cooperative Inter American English Reading Tests and 71,732 Spanish Reading Tests to seventh and tenth grade students.

The results of these tests were used in individual and group counseling services with both students and their parents. The scores were interpreted to teachers and administrators for use in bettering student-school relations.

Counselors and faculty worked together in gathering data on causes of drop-outs and failures.

Ten counselors worked with teachers in studying the correlation between the results of the science and mathematics tests and student achievement in these subjects. Another 125 counselors studied the correlation between the results of the Puerto Rican General Ability Test and those of the College Entrance Examination Board tests. Twelve worked with teachers in studies of the correlation between the academic index of students and their occupational plans. Counselors in 14 senior high schools with a course in health cooperated with Health Program supervisors and teachers in a study of personality traits in the Puerto Rican adolescent, the results of which are to be ready in 1968-69 and are expected to be very helpful in counseling and analyzing youth problems. The counselor in a Ponce junior high school and the English zone supervisor carried out a study on the attitudes of 741 students in seventh, eighth and ninth grades toward their English classes, as English is taught as a second language in Puerto Rico.

Post-secondary, including graduates and drop-outs

A follow-up study was made of the 1966-67 high school graduates to determine how counselors and teachers could improve guidance services by providing information more in line with student interests and helping students make educational and occupational plans that more accurately reflected their abilities, aptitudes and interests. This study showed that of 1,185 graduates from vocational high schools or vocational departments of academic high schools, 67 per cent were employed, 14 per cent were in the Armed Forces or had gone to the states, 9 per cent were studying or in other activities and only 2 per cent were unemployed. On 6 per cent there was no information.

Of the 19,697 graduates from academic high school courses, 39 per cent continued studying at college level and 19 per cent at non-college level; 16.8 per cent were employed, 6.9 per cent were in the Armed Forces or had gone to the states and approximately 9 per cent were unemployed. There was no information on six per cent.

Counselors worked closely with vocational agriculture teachers in selecting both graduates and drop-outs for post-secondary courses and in securing economic aid for those needing it in order to continue studying. They provided similar cooperation for the post-secondary courses in office occupations and distribution and marketing.

They worked in close cooperation with home economics personnel in the development of the occupational courses and in selecting graduates or drop-outs for these courses.

The counselor and teachers from the Technological Institute of San Juan visited six high schools in the San Juan educational region and six in the Ponce region to give orientation to graduating students on post-secondary courses offered in the Technological Institute of San Juan and the new Technological Institute of Ponce to be opened in the fall of 1968.

Special Needs

Guidance centers were organized in three public housing projects in Mayaguez, Ponce and Río Piedras with a full-time counselor, in four public housing projects in Arecibo (1), Mayaguez (1) and Ponce (2) with a part-time counselor. Another full-time counselor works in the Job Corps Camp of Mayaguez.

There were 945 out-of-school youth or drop-outs in the three centers with full-time counselor and the Job Corps Camp. Of these, 877 were given 1,739 individual interviews. Parents were involved in the counseling through 632 home visits, 571 personal interviews and four group meetings.

On the basis of these interviews and of various types of tests, 392 youth were referred to academic or vocational schools and other vocational training programs and 311 to employment offices. It was necessary to refer 380 to health services and one each to the Drug Addiction Treatment Center and to Vocational Rehabilitation.

The five most serious handicaps of these youth were economic problems, lack of employable skills, poor health, poor family relations and social or community maladjustment.

Programs of cultural, social and athletic activities were organized in all the centers and the Job Corps Camp in cooperation with programs of other government agencies.

Publications

Eight new occupational guides for high school graduates were published and distributed for use of counselors and teachers and to be placed in school libraries. Titles were (in English translation): Practical Nursing, Professional

Nursing, The Teletype Operator, The Home Electric Appliance Mechanic, The Accountant, The Electronics Engineer, The Dietitian, and The Medical Doctor. Two guides are in draft form, to be published for the coming school year: The Social Worker and Hotel Services Training.

A manual for junior high school teachers on group guidance activities to be carried out in the guidance period was distributed to 309 rural and urban junior high schools. It contains 72 lesson plans or suggested activities, 24 for each of the three grades, seventh, eighth and ninth.

The 103 senior high school counselors were provided with the Dictionary of Occupational Titles, Volumes I and II; Guide to Careers Through College Majors. Steinberg, 1964; and The Counselor In a Changing World. G. Wrenn, 1962. All school counselors received copies of the Wrenn Report on the Commission on Guidance in American Schools and Group Counseling in Secondary Schools, Mahler and Caldwell, 1961.

10. Activities in strengthening programs

c. Curriculum development

Trades and industry

Three teachers in radio-television mechanics, refrigeration and air conditioning mechanics and construction drafting were given training in curriculum construction and assigned to the Curriculum Center of the Arecibo educational region to prepare materials for courses in their respective trades, incorporating units on applied geometry, basic mathematics and adding illustrative materials for the courses.

Three curriculum technicians worked on a part-time basis in revising and preparing informational material for the cooperative industrial education program.

A pilot project was begun in the Mayaguez Vocational High School using special units for teaching applied mathematics in a course on basic electricity that would serve as preparatory training for all courses related to electricity.

Health Occupations

An experimental curriculum in practical nursing, on trial for three years in the San Juan metropolitan area, was evaluated by the teachers, supervisors and directors of nursing services using graduates of the course, who reported no difference could be seen between graduates of the experimental curriculum and the regular. This curriculum reduced the instructional material, formerly in 12 areas, to five major areas of medical, surgical, pediatrics and obstetrics nursing and ancillary services, eliminated experiences not directly related to practical nursing instruction and reduced the time to 26 weeks from 32 in the clinical phase.

Office Occupations

The advisory committee appointed at state level last year to revise the office occupations curriculum at secondary level carried out a preliminary investigation on skills needed by graduates in different kinds of office jobs and on ways to provide them with these skills. The director of the Curriculum Center in the Arecibo educational region, which gives special emphasis to vocational education, acted as consultant to the committee. Teaching guides for typewriting, office practices, economics, and general business are now being prepared.

Courses of study for basic and business English and basic Spanish for the two-year post-secondary program were finished and are to be printed in 1968-69.

The revised curriculum for adults was approved by the Secretary of Education and will be placed in the schools in 1968-69. A notable feature is the flexibility of the curriculum that permits a student to complete the requirements for the equivalent of the senior high school courses in two years, instead of three, if he wishes. Also, credits are granted on a semester basis rather than a year, as formerly, with the objective of retaining students for at least a complete semester. Teachers guides in typewriting, office practices, filing, economics, business English and business Spanish, adapted to the two-year program in semester-length courses of study, are in various stages of preparation.

The Curriculum Center of the Arecibo educational region prepared a glossary of business vocabulary and a unit on business letters. The Curriculum Center of the San Juan educational region prepared a unit on grammar for the Spanish classes.

A test was designed to be administered to graduating students of all levels before they take the tests given by the Commonwealth Personnel Office.

Distribution and Marketing

A specialist in curriculum and business education, contracted on a part-time basis, prepared a manual on Merchandise Information with seven teaching units and a manual on How to Start a Business with four units, both of which are to be used in the preparatory program in the twelfth grade. She also worked on a revision of the units on Distribution in Our Economy and Principles of Merchandise Display. She evaluated and recommended books on mathematics and selling techniques in Spanish and printed in Spain.

Vocational Agriculture

Teaching units on biological sciences, soil sciences, agricultural mathematics, agricultural economics, agricultural legislation, agricultural finance and farm management were added to the curriculum of the junior and senior high and post-secondary programs. These were prepared by agronomists and teachers in the field.

Home Economics

Revision of the curriculum for urban junior high schools where a more flexible class schedule with shorter periods is being tried out, was continued. General supervisors, curriculum technicians and classroom teachers collaborated in adapting the curriculum guides to the new requirements.

The Curriculum Center of the San Juan region completed a revised guide for homemaking education in junior high school to adapt the material for a one-year course with a weekly class schedule of 250 minutes. A resource unit on the Organization, Development and Evaluation of Activities of Future Homemakers of America, Puerto Rico Association, was prepared for use of teachers sponsoring chapters.

In the Curriculum Center of the Arecibo region a curriculum technician revised minimum concepts and requirements for all areas of homemaking for useful occupations in Home Economics I. The revised guide is to be tried out by teachers of the San Juan region. Basic concepts for the unit of Family Relationships and Human Development of Home Economics II were revised. A manual on films available in the Audio-Visual Center of the Arecibo region for use in home economics classes was prepared and distributed to teachers in the region, giving a short description of each film.

Materials related to home experiences were also distributed. Three units on vitamins, nutrition and fats in the diet for Nutrition and Health area were prepared.

Groups of teachers at the local level worked in study groups and summer workshops, under the supervision and guidance of the general supervisors of the educational regions, revised units on Home and Family Finances, Preparation for Marriage, Housing, Pattern Making, Bakery, Family Relations, Child Development and FHA Manual according to new concepts and the needs of their classes.

In second semester a home economics teacher was assigned to the new Research and Development Coordinating Unit to serve as coordinator on the project started in 1966 for the production of curriculum guides for the various home economics courses in occupational education. Six guides were completed and are now ready for reproduction. Teachers of occupational education courses also prepared guides and course outlines on the basis of their experiences in the classroom.

Technical Education

Sixteen meetings with representatives from industry and teachers were held to revise and improve the curriculum for the following technologies: electric, civil engineering, chemistry and refrigeration.

An advisory committee prepared a new course in graphic arts to be offered as a pilot project at the Technologial Institute of San Juan in 1968-69 in cooperation with industry.

10. Activities in strengthening programs

d. Research and pilot projects

The Vocational Education Research and Development Coordinating Unit was formally inaugurated April 1, 1968. This new service in the Area for Vocational and Technical Education has been made possible through a federal grant of $140,000, to extend over three years, under Section 4 (C) of the Vocational Education Act of 1963. State funds assigned for operation of the Unit in fiscal 1969 are $62,716 and other federal funds in the amount of $275,139 are from Purpose VI (ancillary services) of the same Act, the Elementary and Secondary Education Act, National Defense Education Act and the Economic Opportunities Act.

Functions of this Unit are closely related to those of the Educational Research Program for Adults and Vocational Education of the U.S. Office of Education and the National System of Recopilation and Dissemination of Information for Vocational and Technical Education.

The Unit aims at improving the quality of vocational and technical education through educational research, coordination in preparing curriculum materials in accord with the Curriculum Development Plan of each program and the development of experimental or pilot projects and demonstrations. It will serve as an information center to keep the vocational and technical staffs up-to-date with activities in all areas.

The Unit will also serve to coordinate the programs and services of the Area with those of other divisions of the Department of Education at all levels and with programs of other government and private agencies whose services complement those of the Area. It is expected that it will also promote a better understanding in the community of the scope and directions of the many training programs and family life education now available to Puerto Rican youth and adults and those planned for the future.

All research and studies begun earlier are now the responsibility of the Unit. Among these is the study begun in 1967 on the educational implications of present and future demand for skilled and non-professional technical personnel in all industries and commerce, (agriculture excepted) by the Social Sciences Research Center, University of Puerto Rico, under contract to the Area for Vocational and Technical Education. This study is to be completed in 1968-69.

A similar study on current and future needs in agricultural occupations is being made by the Educational Research Division of the Department of Education and is expected to be completed in 1969.

There is another study, begun in 1966-67, on the scope of the trades and industry, distribution and marketing and office occupations programs in the area vocational schools and representative high schools having vocational departments in the five school districts of Río Piedras and San Juan to determine how to improve learning experiences in these programs and to incorporate humanistic aspects into the curricula. Recommendations from this study will be introduced on an experimental basis in 1968-69.

A four-phase study of the organization and functioning of the guidance program in the public schools of Puerto Rico was begun in 1967-68. The first phase, expected to be finished in 1968-69 a time study, is to determine the different activities in which guidance counselors engage. The other three phases are a study of attitudes, opinions and understanding of the guidance program by school personnel, attitudes, perception and understanding of the program by the counselors themselves, and perceptions and image of the guidance program by students and parents. The full study is expected to be completed in 1970-71.

An evaluative study of the home economics occupational education program was begun with the purpose of developing and strengthening this program. The plan for the study and material to be used were tested in a pilot project last June and the full study will be made in 1968-69.

New studies under consideration by the Unit were a study on the current and future needs for professionals in Puerto Rico to be made by the Social Sciences Research Center of the University of Puerto Rico and a proposal presented to the Department of Education by a private firm, CONSAD, for a project in developing educational nodules in the vocational and technical education field.

A study was initiated during the year to determine what provisions are available for the development and expansion of vocational and technical education programs and for improvement of existing facilities for teacher training under Commonwealth laws and regulations and federal laws such as Smith-Hughes Act of 1917, George-Bardan Act of 1948, Vocational Education Act of 1963, Manpower Training and Development Act of 1961, Elementary and Secondary Education Act of 1965, Economic Opportunity Act of 1964 and the Educational Professions Development Act of 1967.

Trades and industry

Using available records, a study was carried out on the scope of the cooperative industrial educations program and the conditions under which this program is developed at the local level. This covered the total enrollment, number of drop-outs, number of occupations in each local program and in the total program. Some highlights of the study are the facts that there were 25 programs in charge of 22 coordinators in 21 high schools. Enrollment totalled 810 students; drop-outs reached a total of 61 persons.

A study in Aguadilla of graduates of the cooperative industrial education program showed that a large number were employed in distributive occupations. As a result of this study, the program will be modified to include training in distribution and marketing in order to meet community needs. The coordinator of the cooperative industrial education program will be in charge of the combined program and will receive training, orientation and supervision from the distribution and marketing program.

Health Occupations

A study was made of enrollment in and graduates from the practical nursing program between the time it was first organized in 1953-54 and April 1968.

The results are being analyzed by the program's advisory committee. It was found that 1,703 students had successfully completed their training during the time.

Home Economics

A pilot program was developed in Cidra to provide learning experiences related to the home and family life. A home economics teacher was assigned to an elementary school as a resource person and consultant to the teaching staff and to work with an industrial arts teacher. A laboratory training center was specially equipped in the school where pupils from the upper elementary grades received experiences in home economics education and industrial arts. These experiences were incorporated into the academic courses of study as enrichment.

A proposal for developing an experimental program to develop a curriculum, including teaching and audio-visual aids, for training socio-economically handicapped persons with low academic index in different kinds of domestic work has been submitted to the Research Division, U.S. Office of Education (Research and Development of Bilingual Instruction Materials (Spanish and English) for a Total Training and Employment Program on Home Cleaning with Related Basic Education). This three year program will be carried out in cooperation with the Adult Education Division of the Department of Education, the Work Incentive Program of the Department of Labor, the Child Welfare Program of the Department of Health, and the School of Home Economics and Center for Educational Research of the University of Puerto Rico, Río Piedras campus.

Office Occupations

A pilot project in typing and filing at post-secondary level was organized at the Central High School, San Juan, for 35 high school graduates. In the same school a classroom was equipped with multiple channels for experimental use with shorthand classes in transcription, another was equipped with the latest office machines for pilot classes and a typing classroom was provided with adjustable typing desks for classes in that field.

A pilot project in secretarial-bookeeping training was organized at the Río Blanco Second Unit, Naguabo, for 28 tenth grade students, the only such course offered in a junior high school.

Distribution and Marketing

A study was made of the 1966-67 high school graduates from the cooperative program. It revealed that, of the 310 graduates, 49 per cent were employed in distributive occupations, 19 per cent were studying, six per cent were employed in other occupations, six per cent had gone to the States, six per cent were unemployed because of health reasons and no information was available on the remaining 7 per cent.

Studies on school retention in the high school (eleventh and twelfth grades) and post-secondary cooperative programs revealed a 71 per cent retention in high school and 83 per cent in post-secondary program. Causes for dropping out in high school were, as reported low grades in academic subjects, poor laboratory work and economic problems.

10. Activities in strengthening programs

    e. Evaluation of programs and activities

Trades and Industry

The Commonwealth level staff and regional supervisors met at the end of the school year (May) at which time the supervisors reported on accomplishments and problems in their respective regions. Recommendations for improving the program, based on these reports, were proposed and are being considered in preparing the 1968-69 year's program. A similar meeting was held with the cooperative industrial educations coordinators for the same purpose.

Office Occupations

The Commonwealth level staff and the regional supervisors carried out supervisory visits to observe the work of teachers in order to have a basis for evaluating the program. Cooperating employers, whose offices provided the laboratory experiences for students, also play an important role in evaluating the program, as they are requested to offer criticisms and suggestions either during or at the end of the year's work.

The Commonwealth Personnel Office annually administers ability tests in office occupations to high school graduates. These are the same tests required of all applicants for office jobs with government agencies, and students must pass the tests if they are to qualify for these jobs. Of the 679 students who took the clerk stenographer test, 442, or 65 per cent, passed. Of 2,967 taking the clerk-typist test, 1,726, or 58 per cent, passed.

The Commonwealth Water Resources and the Water and Sewerage Authorities and some private companies also give tests to high school graduates, offering employments to those with the highest scores.

Distribution and Marketing

An evaluative study of the adult program was made through questionnaires answered by business owners and managers who had received training in the program and through interviews with the employers of persons who had been trained in the program.

Other phases of the program were evaluated through visits to the classrooms and to those businesses acting as training centers to observe students and to interview the owners or managers.

An informal evaluation of achievements in the new mid-management for supermarkets program was undertaken during the last months of this training through interviews with the supermarket managers under whom the trainees had taken their on-the-job practice.

Vocational Agriculture

An evaluative study of vocational agriculture programs was carried out by the Caribe Consulting Services at the request of the Agricultural Council of Puerto Rico in 1966-67 and the results, submitted in 1967-68, are being used as the basis for revision and reorganization of high school and post-high school programs in 1968-69.

Sources of informal evaluation were interviews with directors of the educational regions, superintendents, principals and teachers; with members of the Board of Directors of the Puerto Rico Future Farmers of America Association, candidates for the State Farmer and American Farmer degrees, contestants in the Star Farmer contest; reports on candidates for awards of the Future Farmers of America Foundation, Inc. and supervisory visits by the Commonwealth level staff and general supervisors in the agricultural regions.

Home Economics

An informal evaluation of program activities was made through visits of the Commonwealth level staff and regional supervisors to schools, observation of projects being developed and a study of reports on activities of teachers and supervisors at the local level. An informal evaluation was also made of the scope and effectiveness of the home economics curriculum in those secondary schools where the total school program is in process of reorganization.

11. Legislation enacted that affects the program

Trades and Industry

Commonwealth Act No. 146, of June 27, 1968, regulates the barbering trade in Puerto Rico and creates a Board of Barber Examiners. Graduates from the barbering courses offered in vocational schools must now pass test administered by the Board in order to be certified as authorized barbers. The law designates the Department of Education as the official agency for certification and accreditation of schools teaching the trade of barbering.

12. Cooperation with other agencies

Trades and Industry

Employment representatives of the Employment Security Division of the Department of Labor maintain offices in the large area vocational high schools. They and personnel in the local employment offices help in determining the local needs for trained personnel, help in the selection of students for specific courses and in placement of students on completing the training. They work closely together with vocational education staffs in a successful relationship.

Activities at regional and local level were carried out in cooperation with the Economic Development Administration; Cooperative Development Administration; the Public Welfare Division of the Department of Health; the Puerto Rico Urban Renewal and Housing Corporation; Department of Justice; Veterans Administration; the Apprenticeship Program, Examining Boards and Bureau of Accident Prevention of the Department of Labor; and the Puerto Rico Telephone Company.

Health Occupations

The different training courses were offered in cooperation with the Departments of Health and Labor, municipal and district hospitals and health centers, private hospitals and clinics, the Medical Center of the University of Puerto Rico, Río Piedras campus, the Association of Practical Nursing and the Association of Professional Nursing.

Office Occupations

The program carried out a secretarial training program for 146 employees of the Police Department and Inter American University. It also collaborated with the Cooperative Development Administration in preparing a course for training administrative secretaries.

Supervisors cooperated with the Recruitment Section of the Commonwealth Personnel Office on procedures for administering the Personnel Office tests to high school graduates. Teachers collaborated in administering these tests and during activity month (June) helped to correct them.

Faculty of the University of Puerto Rico, Río Piedras campus, of Catholic University of Puerto Rico and New York University (extension center at the University of Puerto Rico) always cooperate in organizing summer courses and regular courses for teachers working towards a bachelor's or master's degree in business education, in evaluating the work of practice teachers, in organizing in-service training activities and in the preparation of teaching materials and the revision of curricula.

Distribution and Marketing

The program worked closely with the Small Business Administration, Wage and Hour Division of the U.S. Department of Labor, the Commonwealth Departments of Commerce and Labor, Internal Revenue Division of the Commonwealth Treasury Department, Agricultural Marketing Service of the Department of Agriculture, Humacao Regional College of the University of Puerto Rico, Sales and Marketing Executive Club, Association of Owners of Furniture Stores, Salesmen's Association and the Puerto Rico Industrial Meat Company.

In cooperation with the Department of Labor and the Puerto Rico Urban Renewal and Housing Corporation, 98 preparatory courses were offered to adults interested in working in distribution and marketing.

Vocational Agriculture

The program cooperated with the Soil Conservation Service and Agricultural Marketing Services, of the Department of Agriculture, the Commonwealth and federal Agricultural Experiment Stations, the Agricultural Extension Service of the University of Puerto Rico, the Employment Security Division of the Department of Labor, The Cooperative Development Administration, Economic Development Administration, the College of Agriculture and Mechanical Arts (University of Puerto Rico, Mayaguez campus), and the Agricultural Council of Puerto Rico.

A one-year leave of absence was granted to a general supervisor to work in Venezuela with the Agency for International Development and to another to work as a technician in agricultural education under UNESCO in Colombia.

Home Economics

Close cooperation was maintained by the home economics program in useful education with the Bureau of Accident Prevention of the Department of Labor, the Public Welfare and Nutrition Divisions and Child Welfare Program of the Department of Health, Puerto Rico Urban Renewal and Housing Corporation, Puerto Rico Family Relations Institute. Consumer Guidance Program, Puerto Rico Nutrition Committee, Home Nursing Division of the Puerto Rico Chapter of the American Red Cross, Agricultural Extension Service of the University of Puerto Rico, the School of Home Economics of the University of Puerto Rico, Río Piedras campus, and the home economics faculty of Inter American University, San Germán campus.

Occupational education courses were planned and developed in close cooperation with the Employment Security Division of the Department of Labor, Public Welfare Division of the Department of Health and the Puerto Rico Urban Renewal and Housing Corporation.

Technical Education

Courses in technical education were organized in cooperation with ten government agencies, six petrochemical, six communications, six construction, five tool and equipment and four data processing and 23 other industries. Close cooperation is maintained with the Superior Education Council of the University of Puerto Rico and the Economic Development Administration in preparing plans for and developing new or expanded courses and training programs.

Guidance

The Commonwealth level staff and counselors worked closely with personnel of the Work-Study Camps program of the Department of Education, On-The Job Training and New Careers Programs, and Employment Security Division of the Department of Labor, Educational Opportunities Center and Work and Study Programs of the Office of Economic Opportunity, Puerto Rico Urban Renewal and Housing Corporation, College Entrance Examination Board and admission officials and faculty of colleges and universities in Puerto Rico.

13. a - Outstanding features of the Commonwealth program

Organizing the Research and Development Coordinating Unit at Commonwealth level to carry out and coordinate studies aimed at improving vocational and technical services and to evaluate and keep programs of the Area up-to-date through curriculum development.

Receiving a contribution of $2,075,200 from the Federal Economic Development Administration for the construction of the Guayama Area Vocational High School.

Opening the Tomás C. Ongay Vocational High School that offered 25 courses to an enrollment of 1,135 students at high school and post-secondary level, extension courses and vocational training for veterans.

Establishing the Multiple Level Occupations Center on the grounds of Ft. Buchanan under the Manpower Development and Training Act, the first in Puerto Rico and only third of its kind in the United States, to offer training to 300 cultural and socio-economically disadvantaged youth who dropped out of school before finishing the eigth grade, which, it is hoped, will reach a group of unskilled that so far has not been involved in any training program.

Arranging for the first time with New York University to offer summer extension courses at graduate level in home economics to 39 teachers.

Increase, by law, of $25 a month in guidance counselor salaries, which will attract more qualified perons to this program.

Securing the excellent services of an information specialist for the Area, to work in coordination with the Area for Community Relations of the Department of Education.

Contracting the services of the Humacao Regional College of the University of Puerto Rico to offer secretarial, mid-management and business administration courses at post-secondary level and to offer courses in nursing leading to an associate degree; and contracting the services of the Puerto Rico Junior College (private) to offer a similar nursing course to 72 students.

Securing the gratifying cooperation from industry and commerce with programs of Trades and Industry, Office Occupations and Distribution and Marketing for both teacher training activities and student laboratory experiences.

Transferring to the Board for Vocational Education, under Commonwealth Law No. 121 of June 1965, responsibility for accrediting all schools and programs of practical nursing and, under this provision, the organization of an office for this purpose under the assistant director in charge of the Health Occupations Program.

Membership of Assistant Secretary on the Cooperative Manpower Planning Systems (CAMPS) at Commonwealth level. The Assistant Secretary and director of the Manpower Development and Training Program are members of the Manpower Training Committee also at Commonwealth level.

13. b- Major strengths of the Commonwealth program

A major strength in vocational and technical education has been the emphasis on activities for teacher training and professional improvement. These activities served to improve the quality of instruction and supervision in all programs and to up-date teachers and supervisors so they keep pace with new trends and technologies in their fields.

Trades and Industry

Four teachers completed requirements for a master's degree and two more are doing graduate study. Twenty-six teachers completed requirements for certification.

Health Occupations

Two teachers are studying for a master's degree and one teacher is on leave of absence to complete her bachelor's degree.

Office Occupations

Twenty-five teachers are studying for a master's degree and 83 completed requirements for certification.

Vocational Agriculture

Two supervisors completed their master's degree and 13 teachers the requirements for certification. Eight teachers and supervisors are studying for a master's degree; one assistant director is studying to complete requirements for certification in supervision and administration.

Home Economics

Thirty-nine teachers are enrolled in graduate studies for a master's degree.

Technical Education

Two teachers are studying toward a master's degree.

Guidance

Five counselors finished requirements for certification and 20 are studying toward a master's degree.

Related to this aspect of teacher training and professional improvement is the fact that the Area for Vocational and Technical Education succeeded in getting the approval of the Commonwealth Bureau of the Budget for 41 new, additional teaching positions in 1968-69: 15 in Office Occupations, 10 in Distribution and Marketing and 16 in Home Economics.

The impact of the presentation by the Area for Vocational and Technical Education at the Educational Conference organized in April by the Department of Education notably strengthened the position of vocational and technical education in both the schools and the community. The Assistant Secretary and all program directors worked together in preparing this presentation.

All financial aspects of the Area, including payroll, were integrated into the functions of the Finance Division of the Department of Education which is staffed by personnel specially trained in finance. This change permits much more efficient disbursement of funds and preparation of payrolls.

Another major strength has been the expansion of work with out-of-school youth and persons with special needs, so that 3,014 more persons were served in 1968 than the year before, increasing from 17,201 to 20,215 persons.

A third major strength has been to have the Curriculum Center in the Arecibo educational region assigned exclusively to vocational and technical curricula. This makes it possible to do more and better work in the preparation and revision of materials and curricula and opens the way to more fruitful experimentation.

13. c- Unmet needs and problems in the Commonwealth program

The industrialization of Puerto Rico has developed at a more accelerated rhythm than the vocational and technical education programs. There is a real need to augment and improve the educational facilities to train the amount of personnel which particularly, commerce and industry demand today, even more to supply the quantity that will be needed in the near future. Due to the lack of facilities and adequately prepared personnel, the Area for Vocational and Technical Education has been unable to catch up with the shortage of technicians in the Commonwealth.

Old, obsolete equipment in the schools urgently needs replacement, although, whenever possible, it is being replaced to the extent that available funds permit. However, replacement is much too slow to keep up with the needs.

The procedure for purchasing equipment through another government agency is, moreover, a very slow process. This creates another serious problem as it delays the delivery of equipment to new schools or for new courses, often forcing postponement of opening the schools or beginning the courses for several months.

The Technological Institute of San Juan is not yet adequately staffed. The necessary positions of assistant director for student services, assistant director for curriculum, administrative officer, registrar and librarian have been requested in the new budget. Administrative and directive personnel is still needes in order to give the best services to students and provide the highest quality of teaching.

The Area needs, and is making a special effort, to secure even more cooperation from industry and commerce both in use of factories and offices as classrooms to supplement inadequate school facilities and in use of industrial personnel as instructores.

14. Youth organizational activities

Trades and Industry

The Puerto Rico Chapter of the Vocational Industrial Clubs of America (VICA) had a membership of 5,566 in 1967-68, of which 3,619 were affiliated to the National VICA.

Local clubs celebrated career and acomplishments days. Exhibits of projects made in trade courses were held during VICA week, observed from March 11 to 15.

The VICA convention was held at El San Juan Hotel, San Juan, on March 15 as the concluding activity of VICA week. Guest of honor was Miss Virginia Croft from the Washington, D.C., office of VICA. There were 425 delegates and about 25 other guests in attendance.

The VICA chapter at the Miguel Such Metropolitan Vocational High School was presented an award for its 1,605 members, the largest single club membership in the nation.

Office Occupations

Local chapters of Future Business Leaders of America are organized in 80 school districts with a total membership of 6,547, an increase of 232 members over last year.

Six regional conventions were held where contests were conducted to select candidates to compete at the Commonwealth level.

About 600 students attended the Commonwealth level convention where the regional contestants competed in contest for skills in typewriting, dictation and transcription and oratory.

The president-elect of the Puerto Rico Chapter attended the national convention in Washington, D. C.

Distribution and Marketing

The Puerto Rico Chapter of Distributive Education Clubs of America (DECA) has 25 local chapters with 1,121 members. Activities of a cultural, civic and social nature were held at the local level.

The State Leadership Conference was held at El San Juan Hotel, San Juan, with an attendance of 186 delegates and 114 other students, local advisors, school principals, members of the Sales and Marketing Executive Clubs, outstanding business leaders and representatives from the Department of Education. Members of the SME Clubs presented a panel discussion on "Distribution and Marketing Opportunities in Discount Houses and Supermarkets." A program on management opportunities was offered for post-secondary students at an afternoon session.

Three students and two coordinators represented the Puerto Rico Chapter at the National Leadership Conference in Houston, Texas. Expenses were paid by the Sears Roebuck Foundation, Sales and Marketing Executive Club of San Juan and the Corona Brewing Corporation.

The Puerto Rico Chapter of DECA has a scholarship fund, sponsored by local chapters and individual members, that now has $554.84 and will be used for scholarships to high school graduates from the program to continue studies in college. Contributions were also made by local chapters to charities such as charitable campaigns and giving medicines and food to sick students.

Vocational Agriculture

The Puerto Rico Association of Future Farmers of America has 87 local chapters with an active membership of 2,770.

Nine federation meetings and five regional conventions were held at which candidates for the State Farmer degree were chosen to be presented to the annual convention at Commonwealth level.

The annual FFA Convention was held in San Juan in May to coincide with Laud Week, with an attendance of 450 persons, including delegates and guests. Guest of honor was Greg Bomford, National President of Future Farmers of America, who spent the month of May in Puerto Rico and visited local chapters and individual members. He came as representative of the National Board of Directors and the National FFA. The main speaker of the convention was the Honorable Mr. Miguel A. Hernández, Commonwealth Secretary of Agriculture.

Of the regional candidates, 55 were awarded the State Farmer degree, one of whom was selected by a special committee as Star State Farmer. Honorary State Farmer degrees were also awarded to three teachers, one farmer and one superintendent of schools.

The Star State Farmer received $100 from the Loan and Award Fund, $50 from the Puerto Rico Farmers Association, $25 from the Lions Clubs and $10 from the American Vocational Association. In addition, he is to get $200 from the Future Farmers of America Foundation, Inc.

Three members of the Puerto Rico Association attended the 1967 National Convention of Future Farmers of America in Kansas City, Missouri. They were accompanied by a general supervisor, who acted as advisor to the group.

Four members of the Puerto Rico Association received the American Farmer degree at the 1967 National Convention of FFA. Applications of four other candidates were submitted and approved by the National Association, the awards to be made at the 1968 convention.

Sixteen members and six local chapters participated in the award program of the Future Farmers of America Foundation, Inc. at the Commonwealth level and earned awards totaling $1,698.

The Loan and Award Fund gave awards amounting to $4,290 to 149 Future Farmers. Four other students obtained $2,000 in loans from the Fund.

The Indiana and the Puerto Rico FFA Associations for the second year carried [illegible] a student exchange program. Two Future Farmers from Puerto Rico spent June visiting Indiana farms and two Future Farmers from there are to come to Puerto Rico in August.

The FFA of Puerto Rico participated in the annual Commonwealth convention of the American Vocational Association and in those of other youth organizations of the Area for Vocational and Technical Education.

Home Economics

The Puerto Rico Association of Future Homemakers of America carried out a strong program in 639 local chapters with 24,413 members, an increase in 1967-68 of 2,952 students.

Sixteen district conventions were held. This year the clubs of eight districts in the San Juan educational region joined forces and, instead of eight district conventions, held two regional conventions.

The annual two-day FHA Commonwealth convention was held at El San Juan Hotel, San Juan, in April and was dedicated to Miss Ata Lee, former Program Specialist from the U.S. Office of Education who had been working with Puerto Rican home economics program for about twenty years. There were 365 delegates and 113 advisors, the FHA Commonwealth Executive Council, members of the home economics supervisory staff and special guests in attendance.

Junior Homemaker degrees were conferred on 3,881 members; Chapter Homemaker degree on 699; and State Homemaker degree on 44. Honorary degrees for outstanding contributions to the home economics program were conferred at the Commonwealth convention to 15 persons.

The FHA scholarship fund, sponsored by the organization since 1956-57 through contributions from local FHA chapters and individual members has increased to $13,050.50. A fourth scholarship of $1,000 a year was awarded to an outstanding high school graduate from Salinas for study in home economics education at the School of Home Economics, University of Puerto Rico, Rio Piedras campus.

The first student to receive this scholarship was graduated this year in home economics education. She received the Willsey Medal, the highest award in Puerto Rico for a graduate in home economics education and also received a medal from the Commonwealth Association of Future Homemakers of America.

As in the past, contributions were made to the UNESCO gift coupon plan. Contributions were also made to geriatric homes for the poor, Deborah Home, layettes for poor mothers, Institute of Family Relations and others at local and regional level.

15. Advisory Committees

The Commonwealth Board for Vocational and Technical Education acts in an advisory capacity to the Area for Vocational and Technical Education in advising on or suggesting improvements or developments for all vocational and technical programs. Its recommendations serve as guidelines in planning activities in the Area.

Advisory committees at Commonwealth and local levels served all vocational and technical programs effectively in such activities as curriculum construction and revision, suggestions for program improvements, organization of new courses, talks to students and placement of graduates. Most of the committees met at least three times during the year.

16. Additional significant information and materials

a. Special programs under the Area

Industrial Arts

Although Industrial Arts is not a vocational program, in Puerto Rico it is under the Area for Vocational and Technical Education.

Industrial Arts is one of the basic subjects of the general education program for the secondary schools in Puerto Rico. It is offered to boys in the last two years of the junior high level and as elective in the senior high.

Courses give insight and understanding of Puerto Rico's most important manufacturing industries and their importance for our economic development and culture; provide opportunities to discover and develop student talent in technical fields and applied science, develop skills in the safe use of tools and machines.

The total enrollment for 1967-68 was 40,077. Of these, 28,165 were in urban junior high school; 8,597 in rural junior high school and 3,315 in senior high school. This was an increase of 2,701 over last year.

Additional industrial arts programs were established in 9 rural junior high schools, 5 urban junior high schools and 3 senior high schools.

The appropriation for the purchase of equipment was the double this year. For the first time funds for this purpose were matched with Federal appropriations under Title III of the National Defense Education Act (NDEA).

Manpower Development and Training

The Manpower Development and Training Program in Puerto Rico is under the Area for Vocational and Technical Education of the Department of Education.

The program has trained 12,446 unemployed or under-employed persons, since 1963 in 452 different projects in the field of trades and industry, agriculture, business and health occupations.

All vocational and technical education programs cooperate, by providing facilities, teachers and general assistance, to the activities of the Manpower Development and Training Program.

Sixty-six projects were in operation during the year 1967-68 with a total enrollment of 1,430 persons in 39 different occupations. In the health occupations 174 persons were trained in 10 different courses; 91 persons in 4 different office occupations; 34 persons in distribution and marketing; 51 persons in vocational agriculture; and 1,080 persons in industrial occupations.

A separate report will be submitted for the annual activities of this programs.

Hotel School

The Hotel School of Puerto Rico, which is a residential school, continued operating at the Hotel Barranquitas, in close cooperation with the Department of Tourism of the Economic Development Administration. The courses are for a year and are divided into two phases: academic instruction and hotel training.

Academic classes include Spanish, Conversational English, Applied Arithmetic, History, Human Relations and Citizenship. Hotel training covers the technology and practices of hotel duties.

Enrollment was 56 students, 19 of whom finished their training in Dining-room and Short-order Services and 37 in Food Preparation. All graduates were interviewed for jobs as waiters, short-order cooks and chef's assistants.

Bird's Marriott at the International Airport and the Hotel Conquistador in Fajardo employed six each; El Mesón Vasco in San Juan employed another graduate. The Farmer's Daughter Restaurant asked for two graduates, offering a weekly salary of $90 plus lodging, meals and transportation. This restaurant has also offered several scholarships for graduates to do advanced training in the Dining-room and Short-order Services phase. Graduates are being selected for these scholarships.

An intensive revision of the academic courses was continued in order to integrate them more effectively into the technology and practical training.

For 1968-69 enrollment is expected to reach 100. Efforts were continued to have Industrial Development Administration to build additional facilities of an experimental kitchen and a student dining room. The necessary plans were prepared and it is hoped construction can begin in 1968-69.

b. Promotion

In February 1968 a public information specialist was appointed in the Area for Vocational and Technical Education. This year the services were available to the Area for the first time.

The promotion activities were mostly directed toward the preparation of more than 30 press, radio and television news releases related to program activities, youth and professional organizations and with teacher training program. A special feature article was prepared in an outstanding graduate of the Technological Institute in San Juan. Photographs were taken of the different training activities held in the Area.

A three minute documentary film on the technical education program was produced, under contract by Viguie Film Productions. This documentary was dubbed on video tape with the help of the government television station WIPR.

We are including with this report duplicate albums with photographs of: teacher training seminars held during the month of June; Future Homemakers' Award and a pilot project at Cidra. Also, duplicate albums with clippings of news published by local newspapers.

c. Publications

Two copies of each of the following publications are included:

Trades and Industry

Teachers Manual on Electricity
Job Sheets - Electricity
Dental Assistant Course - Units 1 and 2 Cooperative Industrial Education Program

Home Economics

Unit - The Family and the Development of the Individual
Unit - Clothing and Textiles
Adaptation of the Home Economics I Curriculum in 50 classes (daily)
Knowledge and Minimum Experiences for Home Economics I
Organization and Functioning of the Future Homemakers of America Club
Films on Home Economics
Nutrition and Health
Unit - Nutrition and Health - Topic-Fats in Our Daily Diet
Vitamins

Office Occupations

Office Occupations Compendium

Distribution and Marketing

Preparatory Program - 11th grade - Principles of Distribution and Display of Merchandise
Preparatory Program - 11th grade - Economics of Distribution
Leaflet - Mr. Employer

Guidance

The Programmer
Electrical Appliances Mechanic
Accountant
The Electric Engineer
Practical Nurse
Professional Nurse
The Electronics Engineer

The Architect
The Chemical Engineer
The Medical Doctor
The Dietitian

Other (Not prepared by, but with a contribution from the Area for Vocational and Technical Education)

Public Education in Puerto Rico
Yesterday, Today and Tomorrow

APPENDIX A

COMMONWEALTH BOARD FOR VOCATIONAL EDUCATION
1967-68

Angel G. Quintero Alfaro (Chairman and Executive Officer)
Secretary of Education

Miguel Hernández Agosto
Secretary of Agriculture

Alfredo Nazario
Secretary of Labor

Jenaro Baquero
Secretary of Commerce

Sergio Camero, Administrator
Economic Development Administration

Roberto Huyke, Director
Agricultural Extension Service

Ana G. Méndez
President, Puerto Rico Junior College
Representative of Commerce

Juan F. Vives
Former President, Electrical Workers Union
Representative of Labor

Jorge Bird Fernández, Entrepeneur
Representative of Industry

María Socorro Lacot (Secretary)
Assistant Secretary for Vocational
and Technical Education

Public Law No. 28 of April 1931, as amended, creates the Commonwealth Board for Vocational Education. The Board is composed of the Secretary of Education, the Secretary of Agriculture, the Secretary of Labor, the Secretary of Commerce, the Administrator of the Economic Development Administration, the Director of the Agricultural Extension Service, and three other members representing labor, commerce and industry. The Secretary of Education serves as Chairman and Executive Officer of the Board; the Assistant Secretary for Vocational and Technical Education as the Secretary.

The Commonwealth Board is responsible, among other duties, for carrying out the purposes and the provisions of those Acts of Congress that provide for the development of vocational and technical education through the cooperative efforts of the Commonwealth of Puerto Rico and the Federal Government.

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APPENDIX B

AREA FOR VOCATIONAL AND TECHNICAL EDUCATION STAFF AT THE COMMONWEALTH LEVEL
1967-68

María Socorro Lacot, Assistant Secretary for Vocational and Technical Education

Luis Rafael Ortiz, Assistant Director

Program Directors

Juan Enrique Pérez
Trade and Industry

Mercedes I. Vercher
Technical Education

Dominga Rodríguez
Health Occupations

Isabel Walker
Home Economics

Felipe Nery Rodríguez
Agriculture

Felícita Reyes de Méndez
Office Occupations

María Luisa Ferrer
Distribution and Marketing

Félix P. Cornier
Educational and Vocational Guidance

Ana L. Reyes de Martínez
Research and Development Coordinating Unit

Manuel Hernández
Industrial Arts (1)

José Colón Merced
Manpower Training and Development

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(1) Director, non-vocational program

APPENDIX C
Statistical Tables

TABLE I

ENROLLMENT IN VOCATIONAL AND TECHNICAL EDUCATION COURSES 1966-67 AND 1967-68

Program	Enrollment 1966-67	1967-68
Trades and Industry		
Vocational schools	8,766	9,699
Cooperative industrial education	427	412
Accelerated industrial training	3,484	3,737
Out-of-school youth	3,215	3,772
Persons with special needs	1,281	1,840
Veterans training	1,113	1,838
Total	18,286	21,298
Technical Education		
Regular program	668	730
Extension courses for adults	63	100
Record unit equipment operation course*	24	24
Total	755	854
Hotel School		
Post-secondary	52	56
Total	52	56

*Non-technical one-year post-secondary course.

Program	Enrollment 1966-67	Enrollment 1967-68
Health Occupations		
Practical nursing, regular course	453	581
Cooperative industrial education	398	398
Post-secondary	41	135
Extension courses for adults	74	68
Persons with special needs	17	174
Total	983	1,356
Home Economics		
Useful employment		
Junior and senior high schools	44,172	45,588
Adults and out-of-school youth	5,000	5,207
Persons with special needs	6,500	6,621
Sub-total	55,672	57,416
Gainful employment		
Senior high school	568	875
Out-of-school youth	124	212
Adults	90	138
Persons with special needs	634	817
Sub-total	1,416	2,042
Total	57,088	59,458
Agriculture		
Senior and junior high schools	4,444	4,641
Post-secondary		
U.P.R., Mayaguez campus	-	43
Specialized schools	188	190
Adults	2,151	1,693
Persons with special needs	12	79
Accelerated special training	432	794
Total	7,227	7,440

Program	Enrollment	
	1966-67	1967-68
Office Occupations		
Senior high school	14,682	14,925
Post-secondary	579	793
Out-of-school youth	418	1,493
Adults	3,075	4,069
Accelerated training	18	-
Total	18,772	21,280
Distribution and Marketing		
Senior high school	989	1,121
Post-secondary	104	228
Adults	3,487	6,955
Total	4,580	8,304
Grand Total	107,743	120,046

Educational and Vocational Guidance		
Counselors	246	250
Schools served	397	398
Out-of-school youth centers; work and study camps	5	4
Regular students served	219,872	228,000

TABLE II

ENROLLMENT IN VOCATIONAL AND TECHNICAL EDUCATION COURSES BY PROGRAM AND LEVEL OR TYPE OF STUDENT
1967-68

Program	Level or Type of Student								
	Vocational Schools	Sr. High Schools	Jr. and Sr. High Schools	Post Secondary	Out-of-School Youth	Persons with Special Needs	Accelerated Industrial Training	Adults	Total
Trades and Industry	9,656	412 /2	-	43	3,772	1,840	3,737	-	19,460
Veterans Training	-	-	-	-	-	-	-	1,838	1,838
Technical Education	-	-	-	754 /3	-	-	-	100	854/3
Hotel School	-	-	-	56	-	-	-	-	56
Health Occupations	581 /1	398 /2	-	135	-	174	-	68	1,356
Home Economics									
Useful Employment	-	-	45,588	-	-	6,621	-	5,207	57,416
Gainful Employment	-	875	-	-	212	817	-	138	2,042
Agriculture	-	-	4,641	233	-	79	794	1,693	7,440
Office Occupations	-	14,925	-	793	1,493	-	-	4,069	21,280
Distribution and Marketing	-	1,121	-	228	-	-	-	6,955	8,304
Totals	10,237	17,731	50,229	2,242	5,477	9,531	4,531	20,068	120,046

1/ Practical nursing, regular course

2/ Cooperative Industrial program

3/ Includes 24 students in a non-technical, one-year course on record unit equipment operation

TABLE III

ENROLLMENT IN TECHNICAL COURSES BY INSTITUTION AND COURSE
1967-68

Institution	Course	Enrollment	Total
Technological Institute of San Juan			
Regular, all day	Technology:		
	Chemical	64	
	Civil	83	
	Electronics	67	
	Electrical	37	
	Refrigeration and air conditioning	36	
	Mechanical	31	
	Electronic data processing and programming	37	
	Pre-technical	86	441
Extension, all day	Technology:		
	Alternating current circuits	20	
	Direct current circuits	42	
	Basic electronics	20	
	Highway construction	18	100

Institution	Course	Enrollment	Total
Evening Technical Institute U. P. R., Mayaguez campus	Technology:		
	Drafting and construction drawing	45	
	Electronics and electrical power	83	
	Surveying and highway construction	94	
	Pattern making and metal work	30	
	Electronic data processing and programming	37	289
	Total	830	830

TABLE IV

EDUCATIONAL AND VOCATIONAL GUIDANCE PROGRAM TYPE OF SCHOOL OR CENTER AND ENROLLMENT SERVED BY GUIDANCE COUNSELORS

1967-68

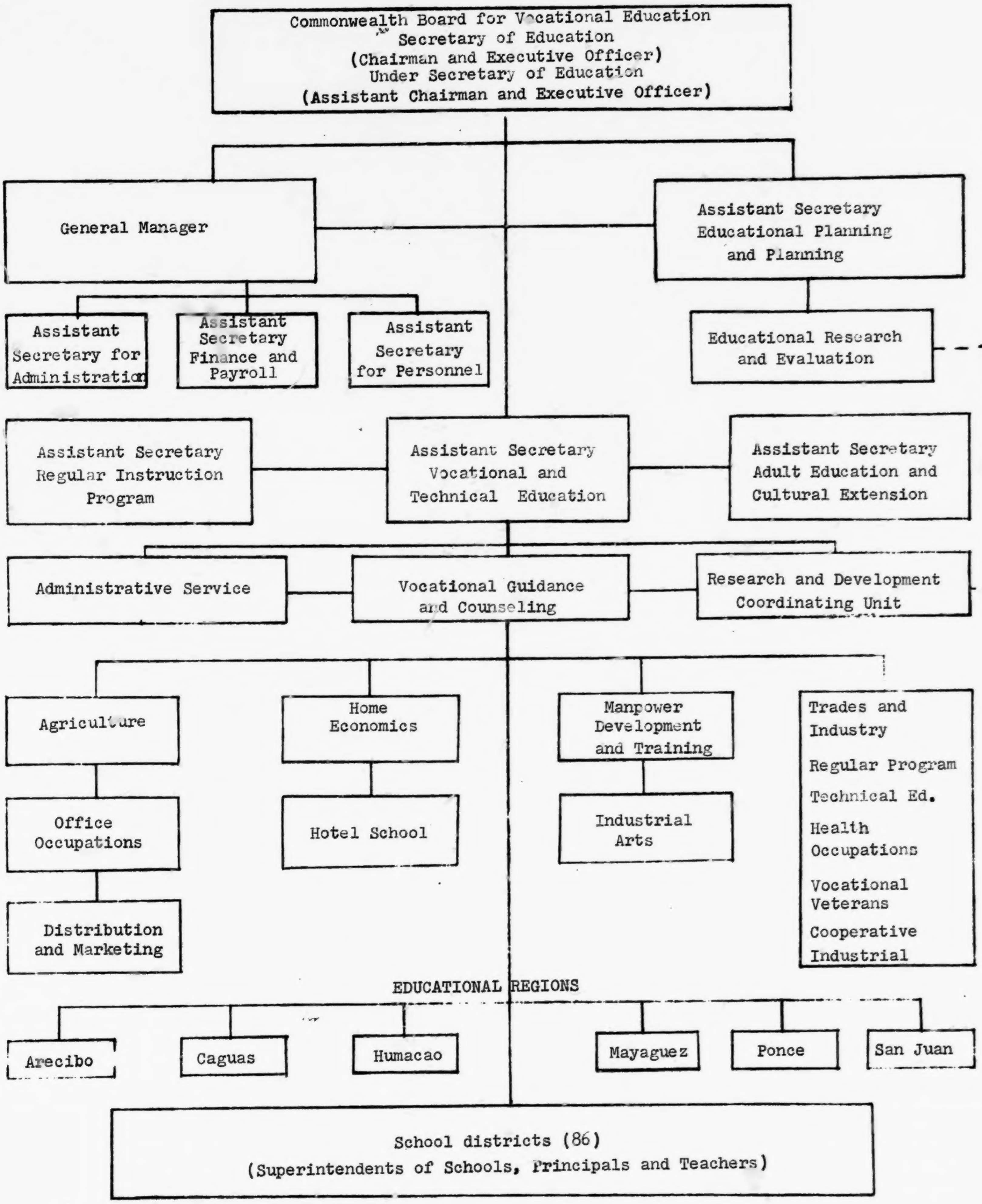
School or Center Level or Type	Number	Enrollment
Urban junior high school	116	99,688
Rural junior high school	180	31,800
Senior high school (urban and rural)	93	88,188
Vocational and technical schools	8	7,334
Hotel School*	1	45
Out-of-school guidance centers and job corps camp	4	945
Total	402	228,000

* Group guidance

Appendix D

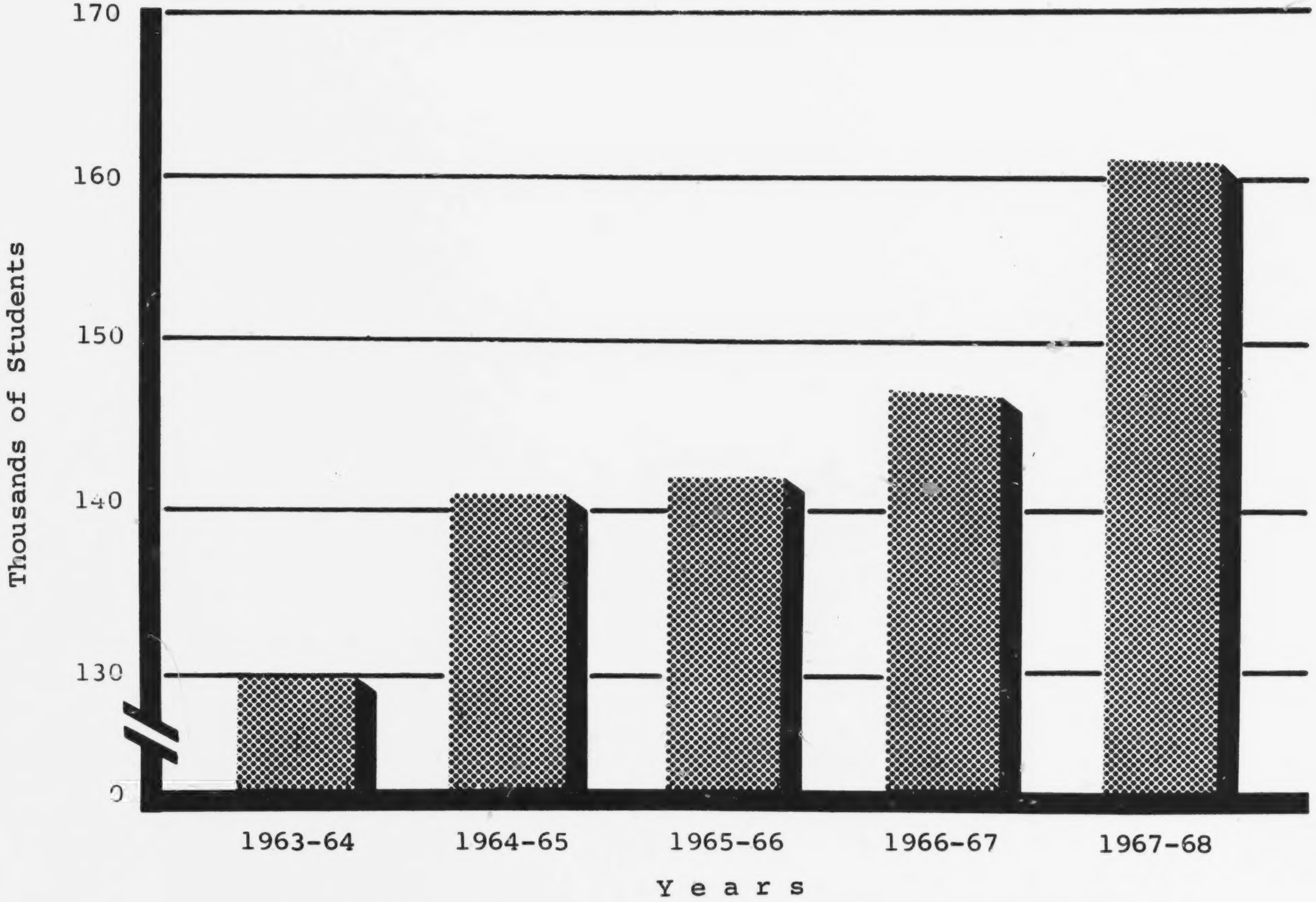
Commonwealth of Puerto Rico
DEPARTMENT OF EDUCATION
Area for Vocational and Technical Education
Hato Rey, Puerto Rico

ORGANIZATION CHART
1968-69


Commonwealth Board for Vocational Education
Secretary of Education
(Chairman and Executive Officer)
Under Secretary of Education
(Assistant Chairman and Executive Officer)
General Manager
Assistant Secretary Educational Planning and Planning
Assistant Secretary for Administration
Assistant Secretary Finance and Payroll
Assistant Secretary for Personnel
Educational Research and Evaluation
Assistant Secretary Regular Instruction Program
Assistant Secretary Vocational and Technical Education
Assistant Secretary Adult Education and Cultural Extension
Administrative Service
Vocational Guidance and Counseling
Research and Development Coordinating Unit
Agriculture
Home Economics
Manpower Development and Training
Trades and Industry
Regular Program
Technical Ed.
Health Occupations
Vocational Veterans
Cooperative Industrial
Office Occupations
Hotel School
Industrial Arts
Distribution and Marketing
EDUCATIONAL REGIONS
Arecibo
Caguas
Humacao
Mayaguez
Ponce
San Juan
School districts (86)
(Superintendents of Schools, Principals and Teachers)

APPENDIX E
GRAPH I

Enrollment in Vocational and Technical Education Courses
1963-64 to 1967-68

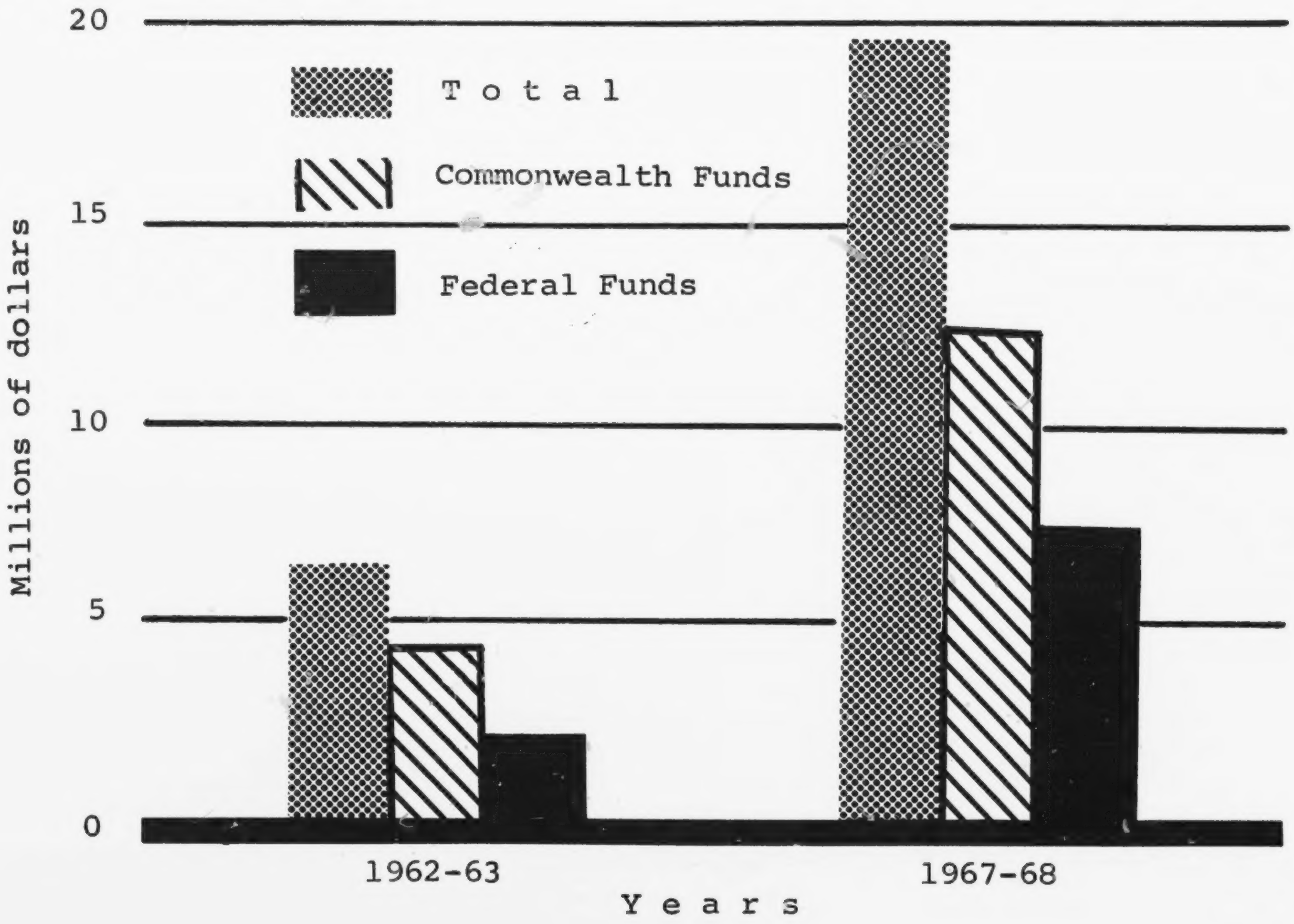


Enrollment in Vocational and Technical Education Courses
(Includes Manpower Development and Training Program
and Industrial Arts)

1963-64	1964-65	1965-66	1966-67	1967-68
130,185	141,278	142,224	147,824	161,816

GRAPH 2

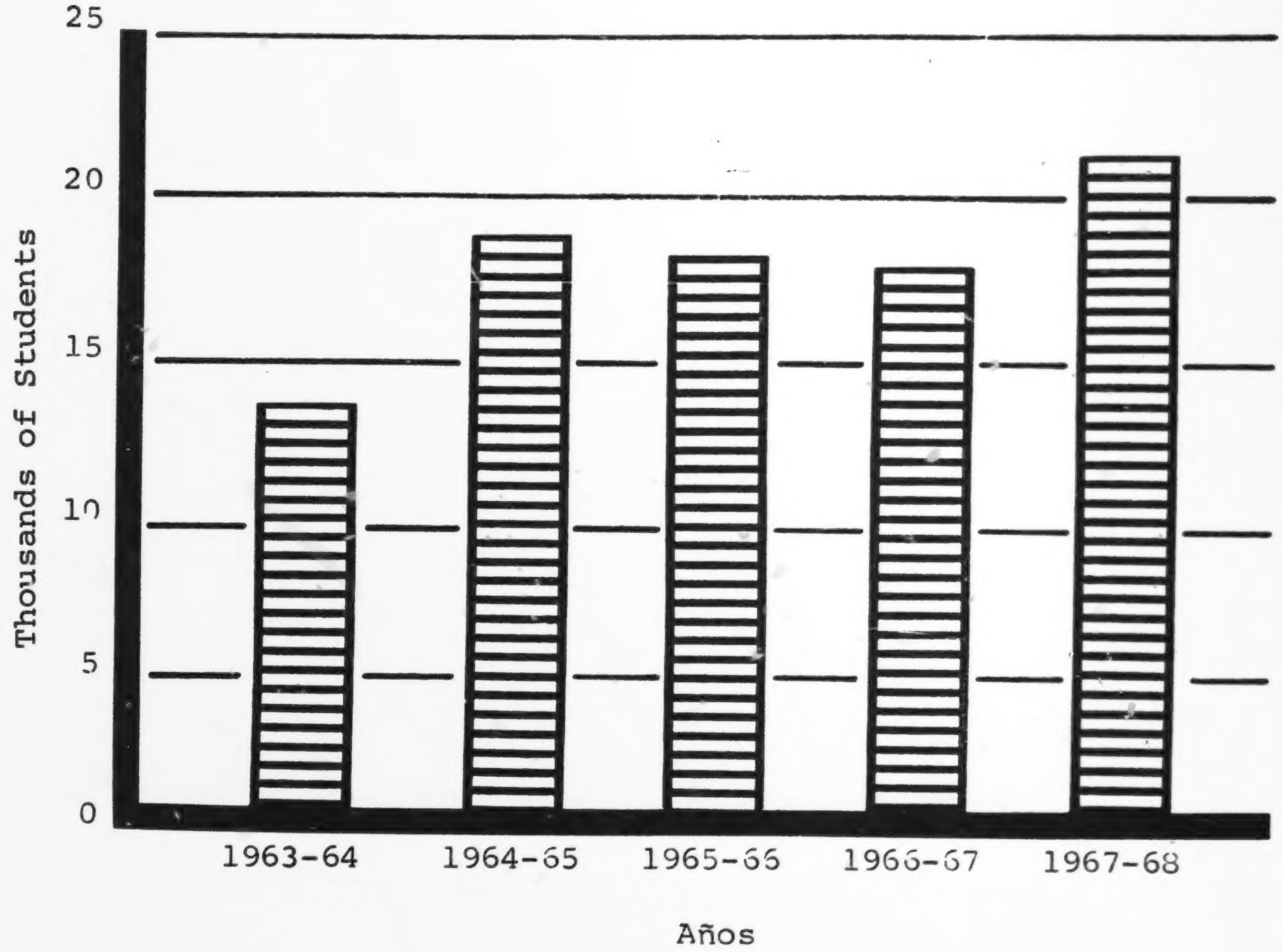
Budget for the Vocational and Technical Education Programs
1962-63 and 1967-68



	Federal Funds	Commonwealth Funds	Total
1962-63	$ 2,056,462	$ 4,086,240	$6,142,702
1967-68	7,519,896	12,103,240	19,623,136

Graph 3

Enrollment in Trades and Industry Program *
1963-64 to 1967-68



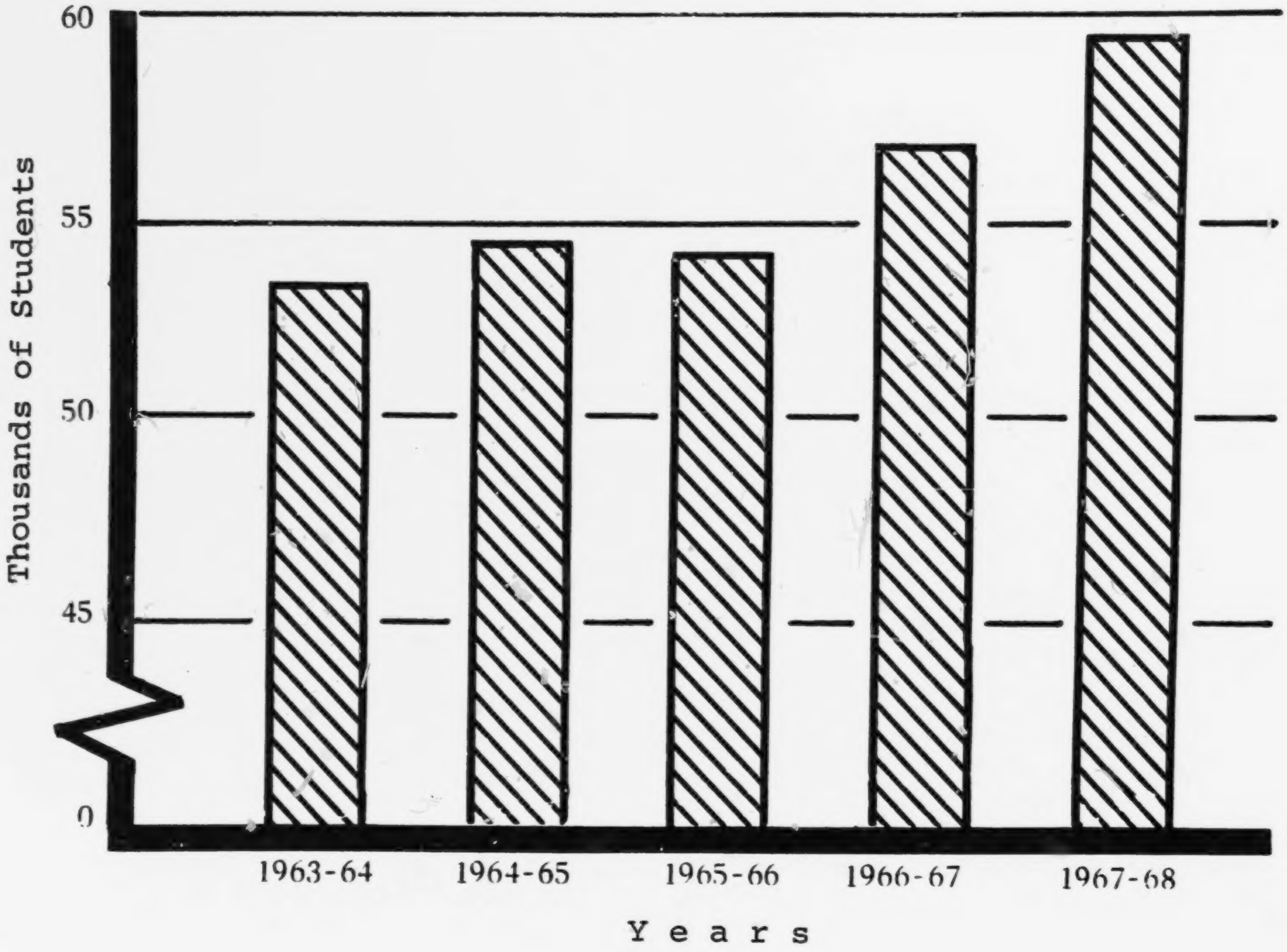
Enrollment in Trades and Industry Program
1963-64 to 1967-68

1963-64	1964-65	1965-66	1966-67	1967-68
13,299	18,703	18,574	18,156	20,816*

* This total includes enrollment in Health Occupations Program

GRAPH 4

Enrollment in Home Economics Program
1963-64 to 1967-68

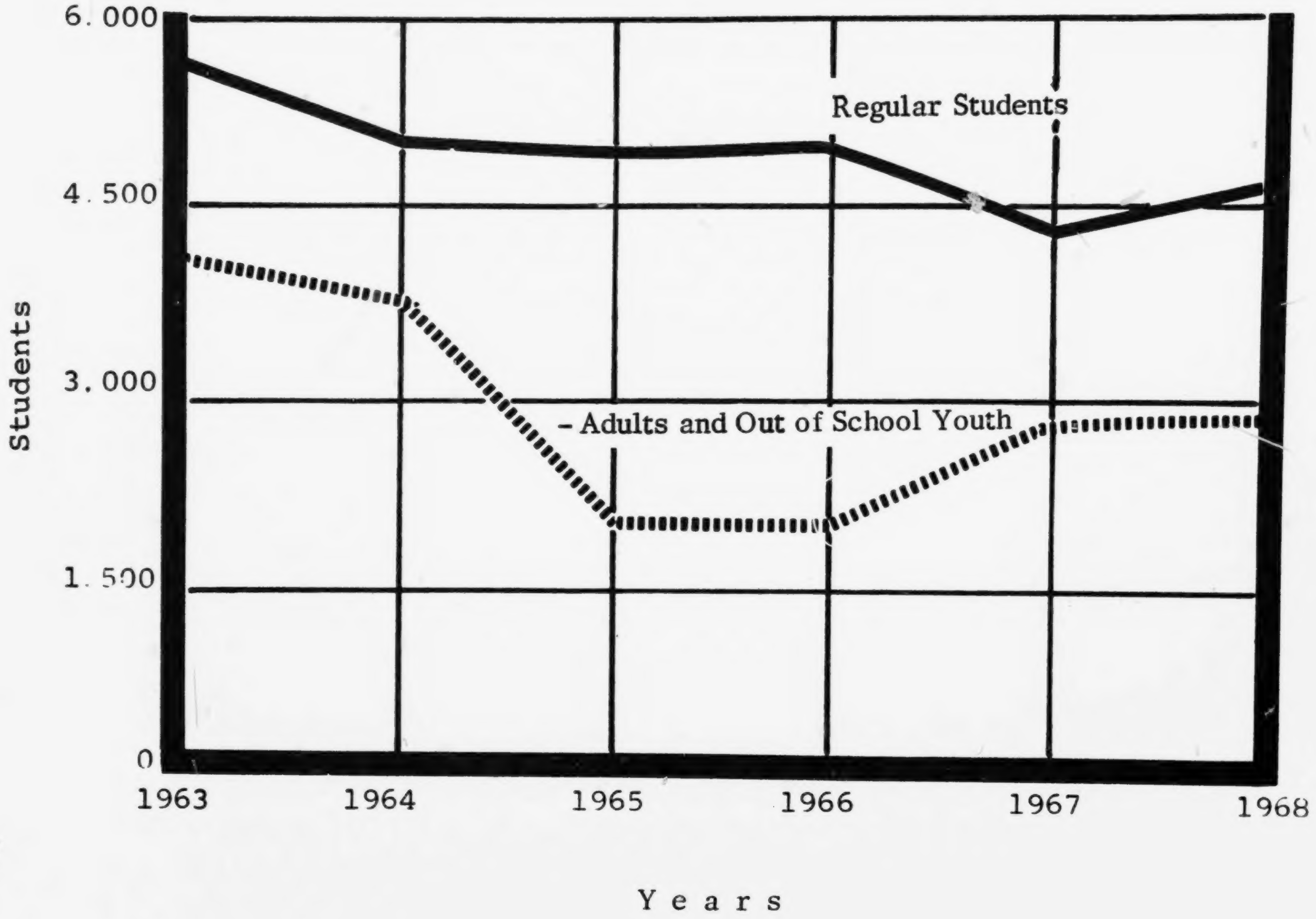


Enrollment in Home Economics Program
1963-64 to 1967-68

1963-64	1964-65	1965-66	1966-67	1967-68
53,335	54,733	54,557	57,088	59,458

GRAPH 5

Enrollment in Vocational Agriculture Program
1963-64 to 1967-68

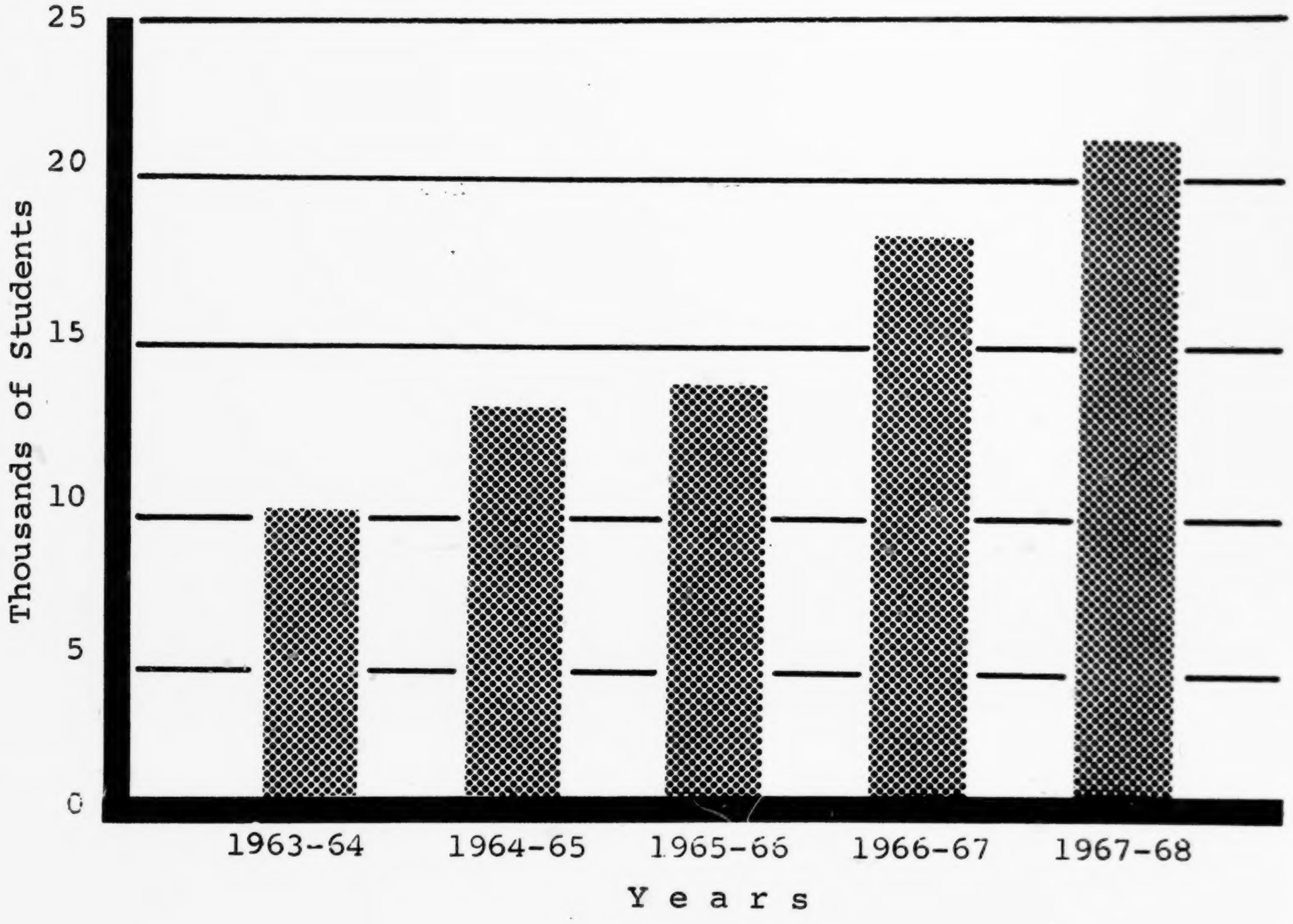


Enrollment in Vocational Agriculture Program
1963-64 to 1967-68

	Regular Students	Adults and Out of School Youth	Total
1962-63	5.691	4,095	9.786
1963-64	5,161	3.756	8.917
1964-65	4,977	2.031	7.008
1965-66	5,088	2,004	7.092
1966-67	4,444	2,783	7.227
1967-68	4,641	2.799	7,440

GRAPH 6

Enrollment in Office Occupations Program
1963-64 to 1967-68

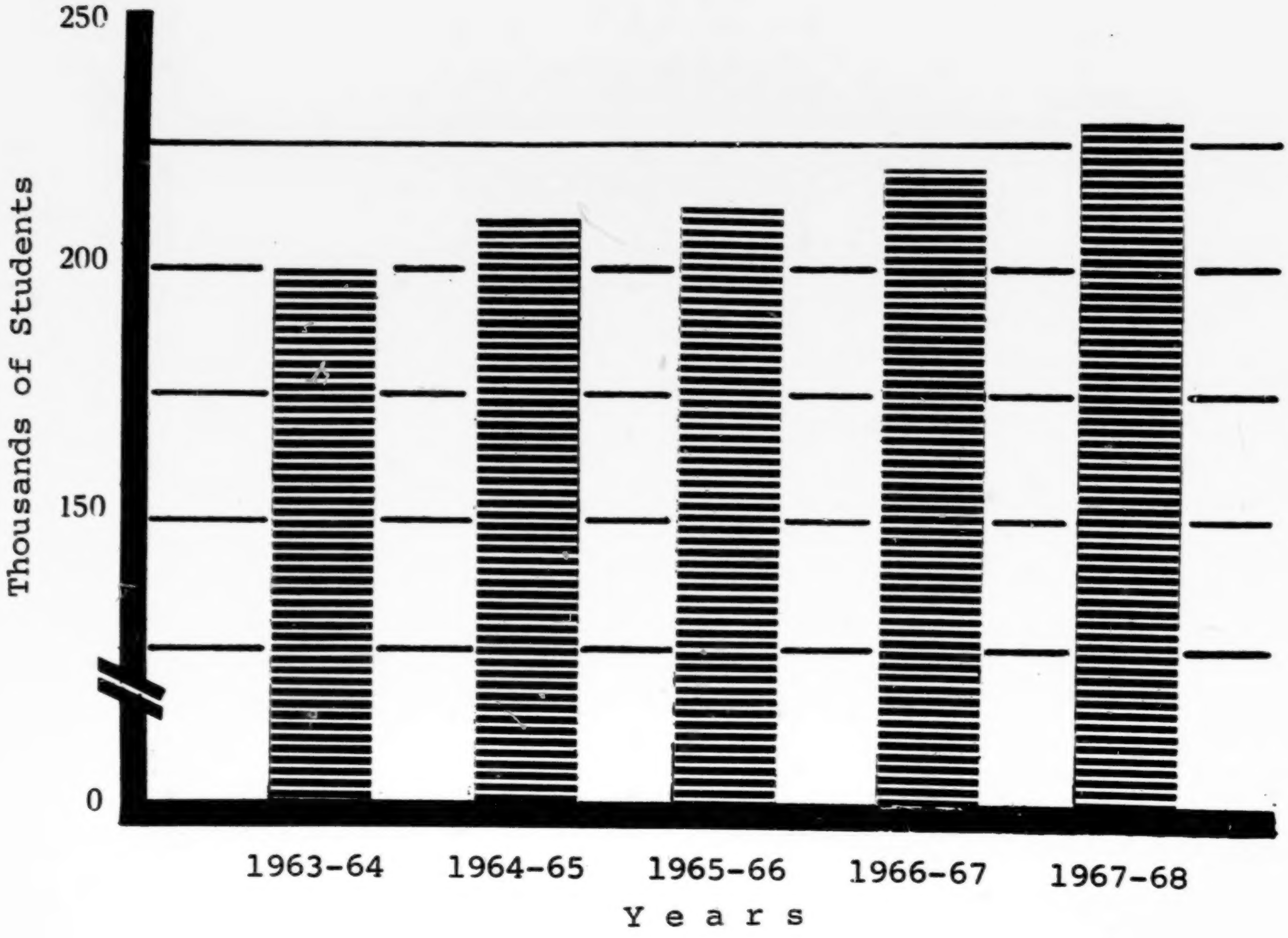


Enrollment in Office Occupations Program
1963-64 to 1967-68

1963-64	1964-65	1965-66	1966-67	1967-68
10,227	13,630	14,321	18,772	21,280

GRAPH 7

Students Served by the Guidance Program
1963-64 to 1967-68



Students Served by the Guidance Program
1963-64 to 1967-68

1963-64	1964-65	1965-66	1966-67	1967-68
200,097	210,061	212,205	219,872	228,000